THE ECONOMICS OF SPORTS

INTERVIEW WITH CANI FERNÁNDEZ AND JORGE PADILLA

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A new year begins

Welcome to a new academic year at the Toulouse School of Economics and, with it, the 19th “summer” issue of the TSEconomist. Along with the size and quality of the magazine, the standard the team works to satisfy increases with every issue. I would like to thank everyone who was involved this summer in helping us maintain the reputation the magazine has earned since its creation a few years ago.

This summer was very special, as people all around the world gathered around the largest sporting event: the FIFA World Cup in Russia. For this issue, we join this worldwide celebration with our Spotlight topic – the economics of sports – featuring articles covering topics from mega events’ investment costs to the asset value of players. You will find articles on the so-called “super-star” effect, which might explain the enormous amounts of money represented by some players’ transfers, on the effect an event like the World Cup has on the host country, and an insight into the sporting world’s gambling system.

In regards to what is happening on campus, this issue includes reports from internships and memoirs, as well as an alumni testimony. In light of the new academic year, you will also find introductory notes from our friends in the other TSE student associations, an interview with BNP Paribas about their hiring process, and a section concerning the upcoming Business Networking Day with the different talks TSE is going to have during this semester. Finally, don’t forget to look at the Teaching Awards special, where we present last year’s winning professors and teaching assistants, as voted by the TSE community.

We hope you like this issue, and you are more than welcome to reach out to us if you want to write an article or join our incredible family!

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Article references are available upon request.
Interview with Cani Fernández and Jorge Padilla

by Tristan Salmon and Arthur Hill

Cani Fernández is a partner in Cuatrecasas, a law firm, where she heads the EU and Competition Law groups and the Brussels office. She advises leading Spanish and international companies on Spanish and EU competition law matters, including merger control and antitrust matters. She also advises companies, governments and EU Institutions on wider EU law issues, and has extensive experience litigating before the General Court of the EU and the European Court of Justice. Cani has also been named as one of top lawyers in Spain by several publications over the last few years.

Jorge Padilla is Senior Managing Director and Head of Compass Lexecon Europe. He has given expert testimony before the competition authorities and courts of several EU member states, as well as in cases before the European Commission and the Community Courts. He has also given expert testimony in various civil litigation (damages) and international arbitration cases. Dr Padilla has written numerous papers on competition policy and industrial organization in the Antitrust Law Journal, the Economic Journal, the Journal of Law and Economics and the Rand Journal of Economics. He co-authored The Law and Economics of Article 102 TFEU, a book often cited in legal briefs and judgments. He is married to Cani Fernández.

They were kind enough to grant us an interview, allowing us to benefit from their legal and economic points of view with regards to antitrust and related issues.

1. Cani, what is the main constraint when dealing with economists and consultants? Jorge, when dealing with (competition) lawyers (including Cani)?

Fernández: For me, working with economists is not an obligation, it is a necessity. Not every competition lawyer is aware of that, but in a field like ours if you don’t work with economists you only get half of the picture. So working with economists in competition law cases is a must. Having said so, the main constraint lawyers face when working with economists is that we speak different languages, even if we have a common objective. I really like when economists take that language barrier into account and help me to understand in plain words what they want to transmit.

Working with economists has also allowed me to understand the economic implications of competition law; something that I grasped only intuitively, and I know I have been able to do a better job as a lawyer because there are economists on my side helping me to understand the concerns of the competition authority from another perspective. The legal concepts I deal with every day are based on economic principles, so because of my close interaction with economists I now have a better understanding of how to allay the concerns of the competition authorities.

Finally, from a personal perspective, interacting with an economist on a daily basis has opened my mind to a different way of understanding human behaviour and social phenomena and that is valuable as well.
Padilla: There is of course a language barrier that causes misunderstandings and which limits the importance of economics in legal disputes, including on competition policy matters. But I believe the main source of friction in actual cases is that they play – and should play – a different role. They are advocates: their role, their mandate, and their responsibility is to do whatever is best for their clients. We are not advocates. We are, or should be, independent experts and therefore we are constrained by economic theory and evidence in what we can argue. Of course, economists want to help their clients as well but there are clear limits for us that don’t bind lawyers. Because we are not advocates but independent experts, we have to speak to what the data tells us and limit our arguments to what is consistent with economic theory. We can try to develop the best possible arguments for our clients, so as to help the lawyer advance his or her case, but always within the limits of economics.

“But in a field like ours if you don’t work with economists you only get half of the picture.”

Not everybody respects those limits unfortunately. But many economists do and that naturally creates tensions because the client and the lawyer – acting as the advocate of the client – want the economists to say whatever is needed so they get off the hook. The economist may not be able to please them because their proposed arguments are fundamentally inconsistent with the principles of economics or the existing evidence, and that obviously creates tensions.

Some lawyers do understand that tension. They understand that if they force the economist to cross the line and become an advocate, it may be detrimental to the client in the end. So they become the allies of the economist vis-à-vis the client. They intermediate between the client and the economist. Some other lawyers don’t understand that tension and are more focused on the short term. They demand the economist to act as a 100% advocate. Those lawyers do not want independent experts but hired guns. Unfortunately, they are not the exception and, regrettably, some economists are willing to play that game.

Coming back to the issue of language barriers, the problem is not just that we speak different jargons. The true difficulty is that economists rely heavily on mathematics. That’s the real issue, mathematics is the big divide. Many people study law because they don’t want to study mathematics – that’s not the only motivation of course, perhaps not the most important one – but for many people it’s important. Nowadays, those lawyers who thought had escaped from maths find themselves doing antitrust law and they have to co-exist with a bunch of nerds who write with Greek letters and make constant reference to the margin. That is a shock! Many of them prefer to live in a state of denial. They reject economics because they cannot understand a formal argument. This is a problem that as economists we need to address. As Cani just mentioned, competition law practice is now embedding economic evidence in a way that is unstoppable. So we need to help those in the legal profession for which this is a drama.

Fernández: Things are indeed changing in the legal profession. For example, in my Cuatrecasas team, we are only hiring lawyers who are knowledgeable in economics as well. The reason is simply that we really need to interact with economists seamlessly. More and more young lawyers have studies dual degrees in law and economics. I expect this to be the norm in the future, at least among those practicing antitrust law.

2. How important is it to understand the historical background when dealing with European institutions?

Padilla: Well, it is absolutely impossible to deal with somebody if you don’t know where that somebody comes from. Unless you understand the historical background, you may get into debates with EU officials that are completely out of context and develop presumptions about how they will react to your arguments that are completely misplaced and unjustified. That will negatively impact on your chances of getting your story though and risks wasting your time and that of your interlocutors at the EU institutions.

In a case, when defending a position, you have a limited number of shots because there is a process and, unlike in our daily interactions in which you can come back to a point or argument once and again, there are only a limited number of opportunities to advance your arguments. Because of these limitations, it is important to understand what the other person thinks.

“They are advocates: their role, their mandate, and their responsibility is to do whatever is best for their clients. We are not advocates.”

This is not true just in antitrust law or more broadly in litigation. It is a more general principle. What matters is not what you say, it’s what the others hear, what they believe you meant. And their beliefs are conditioned by the history of their institutions, their own personal backgrounds, the sort of debates that they have had before. If you are unaware of what has happened before, of the historical background of the institution, you may believe your arguments are extremely convincing, but what they are hearing is completely different and unpersuasive.

Fernández: I agree and I would add that everything has to be put into context. If you consider the latest judgements of the European Court of Justice, you will see how the judges make efforts to put their rulings into a historical and institutional context.

The same happens with what we do with our clients, we have to provide them with the best advice and in order to do so we really need to understand not only where they are coming from or the essential elements for the understanding of the matter at hand, but also the result that you have to provide.
I've been defending clients before the ECJ and the General Court for many years. If you don't know very well the background of the case and you don't understand very well every single element that may be relevant, including how your case relates to cases considered by the courts in the past, you are going to have a very tough time before the Court. While you are given 15 minutes to plead your case, questions from the court can last hours and during those long hours, every single small detail that is relevant for the case is going to be discussed. You have to really be very aware of the whole context to understand what motivates the judges’ questions and how you should answer them to help them make the right decision.

3. There is currently a lively debate in the competition community about the effects of mergers on innovation. Could you tell us a bit about this debate?

Fernández: For me, the issue is very simple, innovation is another element that we have to take into account when investigating mergers in sectors like the pharmaceutical industry, in which the merging parties may have overlapping pipeline products or research and development projects that are duplicative. The impact of mergers on innovation is becoming a hot issue because the European Commission seems to have developed a new theory of harm in the Dow/Dupont merger. I am waiting to see whether the theory of harm in that case will be confirmed in other cases. At this stage I simply do not know yet, whether Dow/Dupont is a standalone case. I know economists are debating that theory of harm. I will follow that debate with interest to see whether a consensus position emerges. If so, I will be better able to advise my clients in future transactions.

Padilla: On the one hand, I find it surprising that so many companies, law firms and economic consultancies complain about the Commission’s analysis of the effects on innovation of the merger between Dow and Dupont. Many of those same companies, law firms and economic consultancies have been arguing for years and years that the Commission was focusing exclusively on static issues, on pricing issues, and ignoring dynamic concerns and efficiencies when reviewing mergers.

“Mathematics is the big divide.”

Well, innovation is at the core of the dynamics of an industry and so it is only reasonable that the Commission focuses on innovation. So I don't think there is any reason to be alarmed or particularly concerned, or to develop conspiracy theories of one sort or the other to explain what happened in Dow/Dupont. What we have witnessed in Dow/Dupont, as well as in GE/Alstom and several other recent cases, is the natural evolution of the analysis of the Commission that moves from simpler concerns to more sophisticated ones, among other things, because our industries are becoming more sophisticated and the companies that are merging now not only compete in prices, but fundamentally compete on innovation.

A separate issue is whether the economic theory and evidence that underpins the Dow/Dupont decision is as robust as it has been presented by some members of the Chief Economist Team (CET). In my opinion, it is not very robust. I think that what the CET has done is identify a number of anticompetitive effects that may have been relevant in Dow/Dupont (I wasn’t involved in that case), but may not be relevant in other mergers where innovation is central.

“You have to really be very aware of the whole context to understand what motivates the judges’ questions and how you should answer them to help them make the right decision.”

I also believe that their theoretical work, while useful, is incomplete. What we need to do as economists is to look at the issue, analyse different models, see if there are additional effects that need to be taken into account when assessing the innovation impact of horizontal mergers, and start developing a road-map for empirical analysis. Ultimately what we need to do as theorists is to identify many different effects so that empirical economists can ascertain which effects matter most in which circumstances. It is a fascinating research agenda for a number of years. I can see people working on this issue for several years. In the end, we will have a better understanding and more robust results.

I welcome the initiative of the CET. Innovation is key and the impact of mergers on innovation was not well understood, but I believe that their work is just the beginning of a research quest and that we all have to be a little more cautious and not pretend that we have a fully-fledged understanding of the issue because we don't. You are going to see many new economics papers on this issue in the next months and years. They will qualify the CET results and will clarify when mergers are bad for innovation.

4. What do you think about big tech companies buying smaller innovative companies? Do we have the tools to control mergers like these?

Fernández: For me it’s rather clear that we haven’t been able to grasp what was really at stake in mergers such as Google/DoubleClick, Facebook/Whatsapp, Microsoft/Linkedin or Microsoft/Skype. Because merger control only concerns transactions where the parties have a relatively large turnover, and mergers are only conditioned when the parties have large market shares measured in value terms, the real impact of those mergers on the markets affected by those deals was not properly assessed.

I am afraid that we may not be sufficiently well equipped to deal with those deals with our existing tools. I feel that, as a result, we may need to regulate industries that have become less competitive due to horizontal and vertical concentrations that fell below
the radar screen, but I still don't know how, whether it should be done using privacy law, consumer protection laws or any other form of sectorial regulation.

Germany has been trying to apply antitrust law to control Facebook. This is highly controversial. It is an initiative to be followed and studied, but I believe that competition laws may prove insufficient and we will need to complement them with other forms of regulation.

Padilla: Companies such as Google, Facebook, Amazon, Microsoft, and Apple are all fantastic companies. They are delivering great services. They are very innovative and have done lots of good things to all of us. Google helps us navigate the web in ways that were clearly impossible many years ago. Facebook has revolutionised the way we use the Internet.

“The gap between the formalistic way in which the statute was applied and the reality it is meant to regulate is slowly being addressed... Or so I hope!”

At the same time, we have to be aware that in some of the markets where these companies operate, market power has increased significantly. Some of them are taking advantage of economies of scale and scope, network effects and so on. They are really achieving degrees of market power that are very significant and this could be problematic, not only because they may no longer feel the competitive pressure of some rivals, but also because they’re extending their businesses to adjacent markets, leveraging competitive advantages that are based on their dominance.

Market power is not a problem in itself but it is something to be watched carefully. There are many allegations of abuse by these companies. We need to look at them and investigate them. But we also need to consider whether antitrust is the right tool to deal with them, or we need to start thinking about the possibility of regulation. While the fact that they have been tremendously innovative buys them a lot of credit, it does not give them carte blanche to do whatever they want in the future. We cannot wait until economic theory and empirical evidence are completely developed to see whether we need to intervene. We didn't wait to have the book of regulation by Laffont and Tirole to start regulating utilities. That of course means that we will make mistakes on the way and that we will have to refine the way in which we intervene in these markets. But I think that given the amount of market power that has been achieved in those markets we cannot stand idle. We need to look carefully to see whether we need to intervene and how, and in parallel we need to develop a better understanding of those markets to refine those regulations and adapt them to the times.

5. How do you see the future of competition law and economics?

Padilla: We need to advance our understanding of markets and strategies. After the gilded age of IO research that culminated with the publication in 1988 of Jean Tirole's book titled The Theory of Industrial Organisation, and with a few exceptions, most IO work didn't add much to our understanding of competition. This is changing now, in part due to the emergence of new business models that require understanding, and in part because we deal with lawyers working on difficult cases who approach IO theorists to understand what is going on. This has led to fundamental developments in the theory of multi-sided markets, for example. This makes IO a little bit more similar to labour economics or other fields where economists move from facts to theory. For too long IO was driven by abstract theoretical concerns.

Fernández: Competition law will continue to evolve. There are gaps to close, as I mentioned when responding to your previous questions. But our statutes are sufficiently flexible to provide a useful framework to assess the competitive implications of new company strategies, even in emerging markets. The statutes may not change but the way in which they are enforced will change. We observe change even in areas like the enforcement of Article 102, where we have been stuck with formalistic concepts for over 40 years. The gap between the formalistic way in which the statute was applied and the reality it is meant to regulate is slowly being addressed... Or so I hope!

With thanks to Alexandre de Cornière, Marc Ivaldi, Doh-Shin Jeon, and Yassine Lefouili for their question suggestions.
In recent years, the call for pluralism has been at the heart of the scientific debate in Economics. Whether you, as an economist, find yourself against or in favour of the development of a plural economics, it is with no doubt a matter of interest for the entire community. Advocates for pluralism are found not only among “heterodox” scholars and students in organisations and institutions that demand an increasingly plural teaching and research, but also among prominent researchers who show concerns for what “we do not see”:

“What I am worried about most of all, is what we don’t see. So, I am worried about the analysis that is never seen, that never becomes a paper and it doesn’t become a paper, because it can’t become a paper. And it can’t become a paper, because that’s not what a paper in economics is all about. I am quite worried about that and [...] we don’t know such vacuums exist.”

While such words might echo a sentiment shared by scholars who define themselves as heterodox economists, they were in fact pronounced by George Akerlof at the ASSA-convention held in Chicago in 2017. During this convention, several scholars including James Heckman and Lars Hansen conducted a panel discussion on what they called ‘The Curse of the Top Five’, and the strengthening oligopoly in transmission of scientific economic knowledge. While all the panel participants underlined a vicious circle in which young scholars in the U.S. get tenure by the number of publications obtained in top journals, such measure in fact becomes the target. That is subject to the well-known Goodhart’s law: when a measure becomes a target, it is no longer a good measure.

Among all the participants, Heckman reports concerns for possible “incest affiliation” between schools and journals. Hansen, meanwhile, suggests the excess of specialisation to be a deterrent for a correct assessment of submitted work, in which editors delegate to referees who might conduct too narrow of a judgement. Deaton points out the intrinsic heterogeneity in young scholars educated worldwide facing different political environments as a rationale for different approaches to economics. In addition to his concern cited above, Akerlof states that making such measure the target risks killing creativity, leading individuals to a personal assessment of own research work on the basis of what could be published or not, finally choosing in favour of what can be published, for clear reasons. This has the potential to leave a black hole in research and risk letting a eureka moment slip out of our hands.

A growing number of individuals, also involving students, urges the development of a more plural economics education: from the UK where Rethinking Economics was born in 2012, this claim now includes several members all over Europe and the rest of the world, as well as other institutions such as Network for Plural Economics or the Institute for New Economic Thinking, whose advisory board is composed of influential economists such as Joseph Stiglitz and Amartya Sen, in addition to the previously mentioned Akerlof and Heckman. The Institute is in fact gaining particular relevance in their contribution to research and advocating the need for a reform of economics education. The Institute supports reform of economics programmes under a growing pluralist perspective, especially at the undergraduate level, with the aim to educate young economists towards a progressive economics critical thinking.

“This has the potential to leave a black hole in research and risk letting a eureka moment slip out of our hands.”

Given pluralism is the issue on the table, let us go back to its definition: according to Oxford Dictionary, it is defined as “A condition or system in which two or more states, groups, principles, sources of authority, etc., coexist.” For the readers somewhat up to date on the subject, you will know that pluralism has been advocated on three core aspects of economics, involving theoretical, methodological and interdisciplinary pluralism. I will start analysing the third. All economists and non-economists will agree that economics has in fact made huge progress towards interdisciplinarity. On one side, research today involves behavioural...
economics, neuroeconomics, economics and ecology, and other sub-fields which include other disciplines’ features, contents and sometimes methodologies. Despite that, sociologists and economists Fourcade, Ollion and Algan (2015) argue that economics is still characterised by a high degree of insularity – it is the first in within-field citation, with 81 percent, compared to other fields like sociology, political science, and anthropology, with respective within-field citation of 52, 53 and 59 percent – while far behind in regard to cross-disciplinary citations compared to sociologists and political scientists. For American Political Science Review, 4.1 percent of total citations goes to the top 25 economics journals, compared to a mere 0.8 percent in the American Economic Review from top 25 political science journals. While it is true that there are epistemological factors that make a field intrinsically insular, facts show that there remains a lot to be done to advocate economics as a truly interdisciplinary field.

“Facts show that there remains a lot to be done to advocate economics as a truly interdisciplinary field.”

The second feature of economic pluralism has to do with methodology, and relates the strong technical apparatus developed on the theoretical side and the empirical side. In economics, the choice of the model to be used has always been of great importance. Given the existing phenomenon we want to represent and what implications we are willing to test empirically, it seems reasonable that we look for the theoretical structure that best represents it. To do this, we look into our economists’ toolbox, which is wide and large in terms of variations of the same fundamentals. When thinking about the right tool to model reality, I reflect on my recent experience with professor Kevin Hoover on Reductionism and Anti-Reductionism in Macroeconomics, that is on the (need or not of) microfounded macroeconomics. Employing the philosophical concept of supervenience, where macro (upper-level) configurations of the world are determined by micro (lower-level) configurations, he suggests that macroeconomy supervenes on microeconomy, in the sense that any identical reconfiguration of agents in the economy results in the same configuration of macroeconomic entities, with the exception that this is not a one-to-one mapping. This fact does not ensure that macroeconomics is fully reducible to microeconomics, because if the goal of reducing macroeconomics to microeconomics is to capture human intentions, such intentions might themselves depend on real aggregates. On a similar perspective, Professor Simon Wren-Lewis from Oxford University suggests that if it is the case that “more equally valid microfoundations were observationally equivalent in aggregate terms, and equally reasonable as representing the reality”, then the aggregate model related to such representations have some utility beyond them.

Then the question is: is it an empirical question that brings us to choose what the best technique is to model reality? Or is it an a priori assumption? Such arguments might be relevant for an evaluation of those works which do not fulfil the criteria of leading journals in scientific economic knowledge. Furthermore, it brings us to the starting point we have made on the basis of Akerlof’s statement, that is how even useful contributions risk to never become actual research because of the lack of appeal to be published. And unfortunately, we cannot quantify the chances we pass up.

“If the goal of reducing macroeconomics to microeconomics is to capture human intentions, such intentions might themselves depend on real aggregates.”

In conclusion, many other arguments remain to be addressed on the issues we have gone through here, which clash with the existence of constraints – economic, intellectual and pedagogical – so that the claim for a plural economics still requires a fine evaluation. A process towards plural economics involves addressing the concerns about editorial pluralism as well as a plural education working together; it will require careful consulting and punctual refinement, but it will eventually lead to a better understanding of the characteristics, economic and not, of the world around us.
SPOTLIGHT

THE ECONOMICS OF SPORTS
The net expenditure of the Paris Saint-Germain (PSG) football team was equal to almost 400 million euros over the past three seasons. This amounts to roughly half of the total market valuation of the current team’s players. However, during the last three years, the PSG’s winning ratio has increased only from 71% to 79%. Clearly, the theoretical relationship between marginal cost and marginal productivity does not seem to hold: the team’s performance has not improved proportionally to its investments. So why is the PSG willing to spend so much in transfer fees, and, more broadly, what impact do these prices have on the football industry as a whole?

“Every team wants the best player and thus small differences in performance translate into considerably higher prices.”

Economic theory offers an explanation: the so-called “superstar effect”, originally articulated by Rosen in 1981. Every team wants the best player and thus small differences in performance translate into considerably higher prices, as a player can only play for one team – this phenomenon also arises in setups where the players are relatively homogenous. Additionally, teams are usually privately owned and thus also seek to make profits, encouraging them to pursue popular players who can increase their fan base and thus their revenues.

This superstar status means that the previous computations did not consider the revenue obtained from advertisements and attendance gained from these new superstars. On the one hand, the marginal attendance or publicity brought to a top team like the Real Madrid or the Barcelona could be very low, as they already have a very strong fan base. On the other hand, the income from all the player-related goodies, such as jerseys, could probably compensate the amounts paid for the players.

Can the effect of the superstar status fully explain the value paid for top players? Since details about teams’ revenue composition are almost impossible to obtain, it is difficult to check if the superstar effect is the only reason.
However, we can still think about additional explanations that go further from the main reasons – success and profitability – driving teams to buy certain players. There could be opportunity costs that were omitted so far, such as, for example, the fear of being left behind and allowing other teams to scoop the best players. Following this idea, buying a player would represent a utility gain from their contribution to the team, from the revenues related to their popularity, and from preventing another team to include a high-quality player and potentially becoming a stronger rival. This argument relies on the existence of incumbents who would preemptively hire more than they need in order to maintain their position.

"Coaches or managers could follow their gut instinct instead of conducting a statistically based analysis of a player’s performance when looking for the next superstar."

But this preemptive hiring does not necessarily follow anticompetitive practices. After all, player selection is a human decision-making process and thus could be affected by behavioural biases arising when the decision-makers are particularly experienced. In fact, coaches or managers could follow their gut instinct instead of conducting a statistically based analysis of a player’s performance when looking for the next superstar. This could explain why they would be ready to pay considerably higher amounts than what the player’s performance seems to be worth. As performance is difficult to forecast, buying football players becomes similar to a common value auction where the winner’s curse may arise, as teams will base their valuations using incomplete information and will end up paying more than what players are really worth.

The progressive and steep increase in transfer value over time inevitably drives the poorer teams out of the superstar market. In most cases, these teams will not be able to become highly successful as they lack the competitive edge required to face the financially stronger teams. This, in turn, reinforces the financial differences between teams, as winners will always be more popular, and thus have higher incomes. Nevertheless, this “success concentration” does not necessarily arise in all sports.

In the National Basketball Association (NBA), all teams have a salary cap that varies accordingly to the total revenue perceived by the entire league in the previous years. In addition, players’ wages are capped according to their seniority. These two factors limit the distortion caused by the “superstar” effect, as showed by the literature, where performance tends to explain 50% more of wages’ variation than in football. This does not mean that players do not receive a superstar treatment, as advertisement contracts will represent an important source of revenue that can surpass their salaries.

However, this regulation means that teams do not directly bear an outrageous superstar premium and that financially weaker teams therefore have the ability to hire high performance players. In conjunction with the draft system, which allows the worst teams to choose the best incoming players before the best performing teams, the existing regulation allows the NBA to have more winner variety than football. These types of regulations are common in American sports leagues like the Major League Baseball (MLB) and the National Football League (NFL). As the following graph shows, these leagues have stronger competition than the European football counterparts, as more teams have the possibility to recruit stars and thus to avoid the scenario where only a handful of teams can win. France is no exception to the rule when we look at a larger time period: in the last five years, the PSG used its financial power to recruit more stars than any other team, winning four league titles in total. For all of the other main European leagues, there is a clear pattern where the same three or four teams always win the competition. However, the UEFA Champions League seems closer to the American level of winner variety, which could be explained by the fact that this competition gathers the best, and therefore richest, teams of each country.
The stunning displays of athleticism and the passion displayed by the fans during global sporting events like this year’s FIFA World Cup often give the impression of a great party in a global village that nobody would dare rain on. However, despite the self-congratulation of organisation committees and local officials, some have argued that behind the cheers lies a grimmer reality: one of unsustainable debt, unfulfilled promise for the local industries, and general lack of awareness in regards to the lives of the host country’s residents. Because of this mounting criticism toward mega-events, the campaign for the organisation of the 2024 Olympics saw candidates drop one after the other, leaving only Paris and Los Angeles. Why then do cities and countries still bid for organising such events? Have their reasons changed over time? What is the expected economic impact of such events, and does this change with the type of event?

To answer these first two questions, one can take the case of the Olympic Games, an event with a capacity to attract bidders that has greatly varied over time. Traditionally, the Olympics were awarded to developed countries and were mostly driven by political factors, with countries not expecting to turn a profit before the dawning of the age of television. However, the number of participants and events increased by a third during the 1960s. As a consequence, the cities were increasingly ambitious, and the explosion of costs left citizens to wonder on the utility of such events. It is also during this time that concerns like the environment and social justice appeared to be increasingly incompatible with the Olympics. In addition, the disastrous events in both Mexico City, where student protesters were shot days before the opening, and in Munich, where Israeli athletes were held hostage and shot by a terrorist group, contribute to further harm the credibility of the Olympic Committee (IOC). Finally, it is during this period that Denver refused to host the Winter Olympics despite a successful bid. The huge debt contracted by the city of Montreal to host the 1976 Olympics was the “coup de grâce” that ended an era for the Olympics. This unpopularity, however, would not last, and being the only candidate for hosting the 1984 Olympics, Los Angeles was able to reuse much of its facilities and to negotiate favourable terms with the IOC resulting in the city being the only one to ever turn a profit. Television revenues became an increasing source of revenue for the Olympics, although the IOC keeps more than half for itself. After the success of the LA games, Olympics were back in fashion, and over the following years bids once again grew and multiplied.
The second era, spanning the 1990s and the 2000s, also saw the emergence of new actors, as emerging and developing countries began to successfully bid to the IOC, with the ambition to prove to the world that they had achieved their transition and deserved a place in the public eye. Some of these games achieved just that, like Barcelona in 1996, where the Olympics helped transform a forgotten city into a tourism hotspot, or like in Beijing in 2008, where the colossal budget of $45Bn was mostly used for transports infrastructure and de-pollution operations. However, the euphoria did not last, as every edition’s increased spending has put pressure on candidates to put forward extravagant propositions, including facilities for exotic sports that will not be fully used during the games and never reused after – think bobsleigh and indoor cycling tracks – instead of more useful infrastructure investments that will at least partially benefit the population. The second issue is the poor ex-ante evaluation of the Olympics’ impact. Despite the bidders paying for everything, the IOC keeps the lion’s share of television revenues. In addition, during the selection process, costs are often underestimated by the promoters, resulting in massive unplanned spending. The job opportunities advertised by Olympics officials often fall short, the increase in employment is only temporary (Matheson et al.), and those extra hours of labour usually go to people who are already employed. Finally, the Barcelona example is often quoted to argue that Olympics at least benefit the tourism industry. However, findings suggest it is not always the case as tourists might delay their presence in a city if it is hosting such an event, as they fear bigger crowds and increased costs. For instance, London, Beijing and Salt Lake City all had fewer visitors the year they hosted the Olympics.

While it seems that organising the Olympics is rarely beneficial for a city and country from a purely economic standpoint, they might produce a feel-good effect for the population or an increased visibility for a country on the diplomatic stage. Do the adverse effects also happen for other types of competitions? Studies made on the FIFA World Cup, by Allmers and Maennig, and the Superbowl, by Matheson, also find that benefits are largely overstated, although they at least seem to exist in the case of the Superbowl. This is likely to be because cities in the United States already invest in huge stadiums for the purpose of prestige, so they usually have few direct costs to bear if they are selected to host a major sporting event.

“During the selection process, costs are often underestimated by the promoters, resulting in massive unplanned spending.”

Mega-sport events usually seem to be a bad deal if measured only in terms of direct economic impact, but these could potentially be mitigated by strategies such as reusing existing infrastructure, filing a bid only when the organising committee is desperate to find organisers or sharing the event between countries or cities, as is explored in another article in this issue.
Are joint candidatures the solution to excessive costs of major sporting events?

by Sébastien Montpetit

This summer, a unique situation drew a lot of attention in North America just before the 2018 World Cup started in Russia: the joint bid made by Mexico, the United States, and Canada to receive the FIFA World Cup 2026 won against Morocco, the other contender. To my knowledge, it is only the second time that a joint candidature receives an event of this scale (the other one being the WC 2002 in Japan and South Korea). This could represent an important shift in the attribution of major sporting events as more and more “United” structures potentially arise in the next decades. It seems like a promising solution to what has been highly criticised in the Olympics and the World Cup: the excessive costs for the host country. In this regard, this article is a first attempt to answer the question of the potential advantages of joint candidatures and of the cost-effectiveness of such economic decisions.

The Excessive Costs of Major Sporting Events and Their Potential Consequences

In a paper I wrote for an undergraduate course, I explored the potential impact of recurrent cost overruns of the Olympics in the “Olympic dream”. In this mostly qualitative analysis, I discovered several interesting features of the modern Olympic Games’ history worth mentioning. In terms of excessive costs, not only is the necessary public spending of the host country huge, but it is also systematically higher than anticipated prior to the Games (for both Winter and Summer Olympics) since at least 1968. Montreal, the second-biggest city in Canada, is the champion in this category with real ex-post costs being nine times higher than expected for the 1976 Summer Olympics. Furthermore, these Games have been an important moment in the Olympics’ history as the only city willing to receive the Olympics in 1984 (the host country being already selected for the 1980 Olympics) was Los Angeles. The city was ready to host the Olympics if and only if they were not asked to bear the inherent costs, which was accepted by the International Olympic Committee (IOC). This experience was such a great success (the local organisation committee registered 300 million dollars in surpluses) that the interest for the Olympics came back.

In my analysis, I noted three potential consequences of these excessive costs: a decline in the number of candidate cities, important expenses in security in the host country, and referendums that result in “no” in many cities. The first point is particularly insightful: in the two following figures, one can see that for both Winter and Summer Games, there is a declining trend in the number of candidate cit-
ies since 1992 (with some exceptions for the Winter Olympics). For the Summer Olympics, the number of candidates was also declining before the Los Angeles Games in 1984. The general population might also be less interested in hosting the Olympics. This can be seen through tremendous amounts of money devoted to security (since the 2004 Olympics in Athens, security expenses ranged from 450 million dollars to 1.5 billion euros) and the increasing difficulty to host the Games through a democratic process within the country.

On the other side of the spectrum, one can look at the potential benefits of receiving major sporting events. In theory, the influx of tourists in the city and public investments in infrastructure should stimulate economic activity. However, empirical evidence is at best mixed on the first question: while some new tourists are attracted to the host city during the event, some simply substitute other touristic activities for sporting tourism. A certain crowding-out effect also takes place, with some people deciding not to visit the city and changing their plans because they expect it to be too crowded. For example, losses due to these effects were higher than the generated revenues around the Olympic sites in London in 2012. Furthermore, public investments in infrastructure for sporting events are not necessarily the most productive ones. In the case of sporting buildings, some of them are not used after the event takes place or they need large amounts of money for their maintenance. Moreover, some infrastructure projects that take place during the event might have been done anyway – not all projects can be attributed to hosting the event. In short, there are not so many tangible benefits to receiving a sporting event for the high costs incurred.

To counterbalance the high costs of being a host, the IOC authorises joint candidatures (either different cities within the same country or cities in different countries) since December 2014. This reform was directly aimed at reducing concerns about excessive costs of hosting the Olympics. Strangely, however, no joint candidature has been submitted so far, even if some discussions have taken place: for instance, Lake Placid in the United States offered to host ski competitions in a potential joint bid with Québec City in Canada in 2016 for the 2026 Winter Olympics.

Concerning the World Cup, the United 2026 is one of the only two joint candidatures to win its bid. Even if doubts remain on the size of the territory being a potential issue, separating the total cost between three countries should at least reduce the financial pressure on the main host, the United States. Luckily, the North American countries already have good stadiums that can be used and do not need to build new ones, but simply need to make small improvements to the existing infrastructure. Unfortunately, since joint candidatures are a new possibility in the mega sporting event business, more work needs to be done to confirm whether this opportunity could finally make mega sporting events profitable. One needs to wait for the real numbers to claim that United 2026 will bring positive net economic benefits.

“The Potential of Joint Candidatures”

Having looked at the cost-benefit analysis of hosting major sporting events, one could ask why countries are willing to lose enormous amounts of money (billions or even tens of billions of euros) to host these events. Among the benefits a country could get, there are certainly advantages for specific interest groups, with some restaurants, hotels, and other facilities surrounding the sites obviously gaining from the event. Some also claim that some politicians may be putting money in their pockets: the Anti-Corruption Foundation, a Russian NGO fighting against corruption, claimed that the Russian government offered generous contracts to individuals close to the President. Another argument that has been put forward is the international visibility that competitions offer. While this is probably true, countries that would benefit the most from it are poor countries, but they rarely host the Olympics or the World Cup.

“Separating the total cost between three countries should reduce the financial pressure on the main host.”
Without a doubt, the only sport that manages to both unite and divide a country must be football. While the World Cup succeeds every four years in attracting careful attention and thrill from a whole nation, the Champions League or Premier League will trigger, every year, the same pride and rivalries. However, football is a sport of not only pride and passion, but also of money. The multibillion dollar industry involves the whole organisation of the national leagues, clubs’ businesses, as well as the media and rights to broadcast, and finally, betting: What better way to spice things up a little than to bet on the game’s outcome? Making the link between the traditional field of gambling and a football game is just another way to intensify the inherent euphoria that surrounds sports. It is at this very junction that bookmakers intervene to make money out of this "mess" mainly made of passion, excitement, pride, gut feelings, and intuitions.

“The dream of beating the bookies is always there.”

But how does making money out of a football game exactly work? The online sports betting market is a peculiar one, with its own words and ways of doing business. At the core of this betting “game” or market, we find the bookmaker, often called a “bookie”, which would be the organisation in charge of accepting the bets and subsequently paying off the associated price for each outcome. Before receiving the bets, the bookie is in charge of allocating specific odds to the different uncertain outcomes of a game. Hence, part of the job of the bookmaker is to foresee the outcome of a game to make profit out of it. It is easy to imagine that nowadays, bookmakers are sharper on their forecasts, using highly sophisticated quantitative methods to derive the accurate odds of these events. Despite this, online betting on sports has faced a substantial increase and interest in the past years – the dream of beating the bookies is always there, and all the advertising around online betting strengthens this phenomenon.

In reality, however, is the goal of making money off online sports betting attainable? If the bookmakers use “la crème de la crème” of data scientists, how should we expect to beat their own odds? What if gambling was not all about instincts and guts?

Hunter S. Thompson once said that “there are many harsh lessons to be learned from the gambling experience, but the hardest one of all is the difference between having fun and being smart”. A team of three researchers (Kaunitz, Zhong, and Kreiner, 2017) built a strategy to make a profit
Spotlight

out of online sports betting. What distinguishes their work is that they chose to rely on the bookmakers’ forecast models. First, they collected ten years of data on the online sports bookmakers’ football games odds in order to ensure the high predictive power of the bookmakers in estimating the final outcomes. They found evidence that bookmakers were already highly performant in predicting the end of a game with accuracy. Based on this, they realised that they did not need to try to build a “better” model, and instead decided to analyse all the bookmakers’ odds and bet on the mispriced ones.

The key element of their approach was to bet on odds that were above their estimated fair value. They therefore built a model that would find these mispriced odds and show them on an online dashboard, and they would then check the bet on the bookmakers’ website to place a certain amount of money on it. A bet would from a fair odd if its expected payoff is zero. After having estimated the payoff of a bet, they would place money on the one that benefited from a positive expected payoff.

Lisandro Kaunitz explained how they would check the dashboard for opportunities from 12:00 p.m. to 12:00 a.m. every Saturdays and Sundays. They spent so much time and energy on the betting that Lisandro Kaunitz regards their profits as a salary and not a return on investment. You would also need a lot of data of many games from different bookmakers’ websites; this is without counting the initial investment, the necessary technology and the time spent looking for the right opportunity.

While making profit out of online sports betting is achievable, is it worthwhile? One of the three researchers, Lisandro Kaunitz discusses the big picture of the betting experience and the concept of a “professional gambler” with scepticism. To achieve sustainable profitability as a gambler is more complex than many imagine: Succeeding in coming up with and implementing the right strategy is very challenging to begin with, requiring high technical and programming skills for data analysis and machine learning. This means learning the skills or hiring someone to do it for you, which takes time and money. You would also need a lot of data from different bookmakers’ websites; this is without counting the initial investment, the necessary technology and the time spent looking for the right opportunity.

So here you have it: Making money out of online gambling is possible. The researchers have even given free access to their dashboard online with the mispriced bets to bet on. Online betting might be more of a waste of time than of money – but if you enjoy it, why not give it a more professional try?

“My spent so much time and energy on the betting that Lisandro Kaunitz regards their profits as a salary and not a return on investment.”
Statistics: a libero in sports

by Jacqueline Seufert

Looking back at the 2014 World Cup, the dramatic match between Brazil and Germany immediately comes to mind. Within minutes, Brazil conceded three goals. Some fans might wonder if Germany had had a winning streak or a “hot hand” that brought them an enormous amount of luck. For a long time, the uncontested view among scientists was that a hot hand was nothing but a probabilistic coincidence. Economists and psychologists argued that the idea of a winning streak was due to the human predisposition to detect patterns in randomness.

However, leading scientists from Berkeley have raised doubt on this alleged cognitive bias. Assuming that a coin was thrown a hundred times, they then looked at how many trials it would take until the expected proportion of success actually converges to the probability of success. They repeated the experiment with different numbers of consecutive successes. To put in context, they found that the more consecutive successes occurred, the longer it took the expected probability to converge to the true probability. This means that a bias indeed exists. However, that bias is not cognitive, but rather a selection bias from the data’s sequential nature.

MIT researchers found that basketball players who have performed well – whether expected to or not – tend to take more difficult shots. Moreover, “hot” players are much more likely to take the team’s next shot and thus are not choosing shots independently. This challenges the common view that shot selection is independent of a player’s own perception of hot-or-coldness. Thus, it might not be a cognitive bias for the audience, but it definitely is for the players. A player who performed well at an earlier stage of the game and exceeded his own expectations is willing to take more risks. Therefore, he shoots from significantly further away, tackles tighter defence, and attempts more challenging shots.

In the case of the 2014 World Cup, the question of a hot hand is difficult to answer because football provides less data than sports like basketball and baseball due to lower point yield. Additionally, while baseball and basketball are rather democratic sports – meaning everyone theoretically has an equal chance to score – football has a relatively high number of players with different positions and thus...
different probabilities to score. Whereas statistics in score-based sports like baseball have intrigued the public interest through movies such as Moneyball, featuring Brad Pitt, the quantitative aspects of races such as NASCAR or horse racing have been of greater academic interest.

“History has shown that the nation hosting the games often over-performs.”

Horse races are particularly interesting due to their abundance of data. It is a common phenomenon for gamblers to underestimate favourites and overbet longshots in order to receive a higher reward in case the longshot wins. This favourite-longshot bias, however, has been proven culturally diverse. The existence of this bias depends on the average pool size, meaning the total amount of bets paid. In the western world, horse-betting is more of a pastime with a relatively low betting pool, whereas in Asia, notably in Hong Kong, betting is business to be taken seriously. Analysis by researchers from Berkeley yielded that bias in favour of longshots exists more prominently in Western countries, where bookmakers bet relatively low amounts (an average pool size of $218,000 at the Yonkers race in the United States) as compared to in Asia (an average pool size of $1.1 M at the Happy Valley race in Hong Kong). As the average pool size is much higher in Hong Kong, bookmakers assess their bets more carefully and attempt to predict the outcome of games more accurately.

Another classic application for horse races in statistics are Markov Chain Monte Carlo simulations (MCMC). A Markov chain is a stochastic process in which the future is not dependant of the past but only of the present. MCMC can be thought of as carrying out many experiments, each time altering the variables in a model and observing the response. The goal of MCMC is to draw samples from some probability distribution without needing to know its exact height at any point. MCMC achieves this by “wandering around” on that distribution such that the amount of time spent in each location is proportional to the height of the distribution. For example, one has eight horses and wants to predict which one is going to win. The individual winning probability of each horse is calculated sequentially based on the prior odds assigned to the animal. The probabilities are then cumulated such that horse number eight has value 100%. If the value that is drawn from the random distribution is higher than the first horse’s value, one will move up the line until a horse’s true probability is strictly higher than the drawn value. In a sufficiently large sample, the proportion of assigned values will reflect the true probabilities for each horse. Thus, even if the true probability is unknown, it is still possible to achieve an accurate model.

As horse races usually largely depend on prior knowledge rather than assuming complete independence from the past, the Bayesian approach has enjoyed significant popularity as it takes prior beliefs into account. Different factors, including the days since the last run, the time of the year, or the characteristics of the running ground, impact the probability of winning. A Bayesian statistician not only distinguishes between winning or losing, but also takes the other factors into consideration. Using the example of seasons – spring and autumn – one can distinguish four cases: success or loss of a horse in spring respective of autumn. This allows the bookmaker to make a more informed decision about the horse’s performance based on the season, and he can thus decide which season would be the best to bet on the horse. This model can be extended to the multivariate case, so that the bookmaker can assess all participating horses based on their performance in different seasons. This and other approaches can set the foundation for more elaborate machine learning methods whose discussion would be a horse of a different colour.
History has shown that the nation hosting the games often over-performs. Both Italy and Canada over-performed in 2006 and 2010 with five and 14 gold medals, respectively, as the Winter Games were hosted in Torino and Vancouver. The trend continued during the Winter Games in Sochi 2014 with Russia scoring eleven gold medals. However, South Korea’s performance 2018 remained on an average level.

The reason for the overperformance at home could be twofold. On the one hand, the host may allocate more money to the success of winning in order to increase the prestige when the world’s spotlight is on them. On the other hand, hosting could have the same effect as the home advantage in any other sports such as soccer. Past analysis has also shown that countries with a socialist background generally overperform. One reason is that in a command economy it is easier to direct funding to the training of athletes. Another motive is that in an authoritarian system, the elites appreciate medals as a demonstration of power and thus, push harder in order to achieve their prestige-bringing goals.

“The GDP also reveals another characteristic of the winning scheme: high-income countries diversify more in terms of sports, while low-income states usually focus on a few sports as a safe bet for medals.”

In conclusion, no matter whether ball sports, races, or a combination of both in form of the Olympics, statistics has found its way into the world of sports. In consideration of the World Cup, we should not forget: the passion for the numbers in the field of football should not predominate the passion for the jersey numbers on the football field.
Remember, remember

by Tristan Salmon

Monarch butterflies travel over 3000 miles from Canada to Mexico each year. It takes three generations to make the full trip, and no single butterfly ever makes the return journey. How do they reach the same spot each year? By instinct? Is this an example of genetic memory passed down from parent to offspring?

Most of our genetic makeup (that determines hair colour, complexion, and so on) comes from DNA passed down by our ancestors. However, our environment also has a significant impact: while it does not condition our DNA sequence, it can affect how our genes are expressed, which, for instance, could explain why identical twins are not actually identical. This “epigenetic” information is susceptible to change throughout our lifetime due to lifestyle, environment or disease.

According to recent research, environmental information could be passed down genetically from parent to offspring. This does not refer to a parent’s teachings, but rather a “factory load” of some environmental memory that determines which genes are expressed. If you have ever wondered why you have an “irrational” fear of spiders or snakes, this may be a survival mechanism inherited from your distant ancestors who were more exposed to these dangers. The more fearful our ancestors were, the greater their chances of survival and of transmitting these genes and environmental memory. Our surroundings have changed faster than we have evolved as a species, so while we still have these prehistoric survival instincts, most of us are never confronted with these dangers.

“Memory is the fourth dimension to any landscape” - Janet Fitch

Research from the Emory University School of Medicine in Atlanta provides evidence for this passing-on of genetic memories. Mice were trained to associate the smell of cherry blossom to an electric shock, so they feared and avoided areas with that odour. The offspring of these mice would also avoid areas with the scent, even though they were never exposed to the electric shocks. The researchers found that the part of the genome that determines sensitivity to that scent was more active in the mice’s sperm, and found differences in brain structure for both the offspring and the parent generation. The fear of the scent was not “taught” by the parents, as the same results were found when in vitro conception was used (e.g. parent and offspring never meet), but genetically transmitted.

Meanwhile, the European Molecular Biology Organization has shown that environmental changes can affect up to 14 generations of offspring in a species of worms. The experiment involved implanting a gene that, when activated, makes the worms glow under UV light (this occurs at a temperature of 25°C but not at 20°C). The first result of this study is that the worms continued to glow when moved from 25°C to 20°C, meaning that they retained some “environmental memory” from their time in the warm climate. The second and most interesting result is that the offspring of these worms glowed too (for up to 14 generations when the five previous generations had lived only in the warm climate). They retained a memory of the warmer environment and their fluorescent gene was active accordingly, despite never having been exposed to 25°C. This memory transmission “may be biological forward planning” by giving an indication of what the environment is likely to be in the future and thus increasing chances of survival, according to Adam Klosin, one of the authors of the study.

What does this mean for us?

At this point it is important to caveat these studies’ potential application to humans. Due to longer life spans and the absence of laboratory conditions, it is extremely difficult to replicate these results for humans, but the possibility of genetic memory being transmitted between generations does exist. According to recent studies, human offspring can possess a different epigenetic makeup due to traumatic events that their ancestors lived through. For instance, after the Dutch famine of 1944-45, the children and grandchildren of women who survived had increased glucose intolerance compared to the control group. Another study found that the offspring of Holocaust survivors had less hormone cortisol (which helps the body bounce back after a trauma), which could lead to a predisposition to anxiety disorders.

Understanding how genetic memory is transmitted would be a significant step in treating phobias, as well as in preventing and curing genetic diseases such as Alzheimer’s or cancer with increasingly sophisticated gene manipulation techniques. More broadly speaking, the transmission of epigenetic information means that the effects of a bad environment harm not only the current generation, but also the offspring, making the fight against pollution and polluted environments even more vital.
The article “Why Are We Paying Different Prices? Hint: Artificial Intelligence is Learning What You’re Willing to Pay” published on LinkedIn by Ted Gaubert, discusses how the progress of Artificial Intelligence (AI) pricing engines are allowing them to influence the functioning of markets. AI is defined as the ability of machines to mimic human behaviour so that they can solve problems. Because of our vast cognitive skills, there are many problems where human beings have traditionally performed relatively well. Developments in AI allowed it to be able to mimic such behaviour, and firms are testing AI pricing mechanisms’ readiness for implementation and trying to understand what kind of role it may have in modern markets.

There is no simple answer to this question. However, as the author argues, one thing that is clear is that AI’s solution to the revenue maximisation problem of the firm is better than auctions. It has become a very attractive way to pricing sales items for companies in the e-commerce sector. However, this new technique has become a big concern for regulatory authorities. In fact, auctions that have long been viewed as optimal mechanisms to maximise revenue are currently failing at getting the attention of most experienced e-commerce firms. So, does it mean that it is time to let AI pricing mechanisms take over, for instance, for the items sold in eBay?

Consider a hypothetical first-price auction on eBay of Jean Tirole’s book The Theory of Industrial Organisation. All online participants, including you, submit their bids and the individual with the highest bid gets the book. I am sure you know the result! You are a TSE student with a high valuation for it – we all are – so I suppose you won. However, I can certainly tell you that you did not pay what you are really willing to pay. Why? Because you are a rational individual who realises that bidding a little more than your rival, instead of bidding the value of your actual willingness to pay, will get you the book and you will go back home with some money left in your pockets.

Now, imagine a similar scenario. This time, instead of you personally going online, you bought an option on the platform beforehand, which allows eBay to participate on your behalf in this auction. Suppose eBay will use AI for this purpose. Well, if you are an active customer, the platform has data on your preferences and your willingness to pay for certain types of goods. The AI will start solving the revenue maximisation problem of the retailer, coming up, most probably, with the same result as previously (i.e. you as a winner). These are intelligent algorithms that know that your valuation is highest among the bidders and will therefore sell the book to you. But, guess what? You will not go back home with some money...
in your pockets! Why? Because the algorithm finds your true valuation of the book, but it does not bid tactically on your behalf. You had to pay a premium to eBay for not having to allocate time to participate in it.

In the end, the AI pricing mechanism does its job for both the seller and the buyer. It reveals your true willingness to pay for the book, creating revenue for the seller. Additionally, it helps you to avoid having to dedicate your time to participate in the purchase. This is the first reason why AI could currently be more attractive than auctions for experienced e-commerce companies such as eBay or Amazon.

Moreover, if one considers the case of airline operators, one can easily reach the same conclusion. As Gaubert (2017) writes, AI is able to “learn about local events that are happening in real time on a global basis far more economically that what could ever be achieved by a host of humans”. It comes up with an optimal solution for the revenue maximisation problem of the firm. In such a case, it may consist of setting high prices for flights going to a city where a big festival is taking place. Therefore, uninformed competitors serve individuals with low valuations, while the informed competitor serves the bucket of individuals with high valuations or the residual demand.

Let’s go back to our hypothetical auction for Jean Tirole’s book, and suppose that the book has a special value for bidders because it is the only book that has been personally signed by him. I guess you will win again, it is the signed copy after all! But, were you tempted to bid more than what you are really willing to pay? Let me answer this question for you, YES! It is the only one on earth that has been signed by him, which means that if you get it, you will be able to sell it for thousands of dollars in the future at the pawn shop. So, you started bidding and you could not stop, right? Congratulations, you are another example of what is called ‘escalating commitments’: you committed to get it and therefore you could not stop bidding.

Nevertheless, if you had allowed the platform to participate for you in this auction, eBay would have avoided this issue. How? Its AI pricing mechanism is good at estimating your willingness to pay because it constantly collects data on your behaviour. AI is so efficient that it could have made a good prediction of your behaviour when participating in an auction. Thus, when solving the revenue maximisation problem of the firm, AI would have stopped bidding on your behalf once it had realised that you would start behaving irrationally. Once again, why? Because it is at that point that revenue is maximised without giving you the disutility you would have received from your escalating commitments.

AI did an excellent job once more: it solved the problem under different conditions, which is the second reason to believe that it is very attractive for the e-commerce industry. Several other reasons can support this fact. For instance, naive consumers – unable to bargain – would also have chosen AI to act on their behalf, because even though they are naive they know that buying the book at a fixed price comes with a premium for the convenience of an immediate purchase, a higher price. This means that consumers also find it attractive.

Ultimately, the examples above and the ones provided by the author support the idea that an AI pricing machine is a very attractive mechanism for the e-commerce sector. It reveals consumers’ willingness to pay accurately, avoids escalating commitments, constantly collects asymmetric information (that is not available to competitors), attracts consumers, and maximises revenue. The concern it is imposing on regulatory authorities, if anything, is just a display of its supremacy and its potential in the near future.
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Dans un article publié par le journal La Tribune en 2015, les perspectives de croissance en Afrique sont résumées dans cette phrase : « les Trente Glorieuses pour l’Afrique ». Mais a-t-on droit à cet afri-co-optimisme à l’heure où le continent est secoué par l’instabilité politique, des guerres civiles extrêmement meurtrières et un terrorisme qui ne cesse de changer de forme ? Les chiffres de croissance du début des années 2000 ne suffisent-ils pas pour nous inciter à rompre avec la vision afri-co-pessimiste qui a forgé les esprits durant les périodes postcoloniales ? L’objet de cet article est d’essayer de présenter un condensé des prévisions de croissance concernant l’Afrique dans les trente prochaines années.

يرى الفيلسوف مايكل شولتز أنَّ العالم المعاصر عاش في فترة من الاستثنائية الشاذة التي ترد فيها بعض الأنواع من البشر أن يعيشون على أرض فرنسا. في حين أن هناك بعض من هذه الأنواع قد أعيشوا سعياً للبقاء على قيد الحياة، فإن البعض الآخر قد أعيشوا بتقدير الحياة وتعاليمهما في الوجود. إن التفكير في هذا النوع من الأنواع الأجسام البشرية كуществة ذات قيمية وضيفها في المجتمع أثبت أن هذه الأنواع قد تشكل البحث البارز في أحضان نشره في حاضرة البشرية.

Peuplée de 1,2 milliard d’individus en 2016, l’Afrique est aujourd’hui le continent qui concentre le plus grand nombre d’enfants non scolarisés dans le monde avec 58% du total des enfants non scolarisés. Il s’agit également du continent où 60% de ses habitants vivent dans des bidonvilles, où seules deux personnes sur trois ont accès à l’électricité, où 36% seulement bénéficient de l’accès à l’eau potable… Cette image trop souvent attribuée à l’Afrique peut s’expliquer par différents facteurs. Sur un premier plan, apparaissent les politiques en matière d’éducation jugées laxistes et peu efficaces dans la majorité des États africains. En effet, le peu de moyens financiers octroyés à l’investissement dans l’éducation ou plus globalement dans le capital humain est responsable de carences pharaoniques en matière de compétences et de formation aux différentes exigences du marché du travail (d'où la forte dépendance en matière de soins médicaux envers les pays développés, notamment la France). De plus, la corruption aggrave l’effet du manque de fonds car elle vient éroder ceux qui existent, ce qui fait que les politiques économiques de relance menées par les gouvernements en place, même si bienveillantes, se sont trop souvent conclues par un échec. L’effet de ce retard éducatif se fait particulièrement sentir dans le domaine de la santé, comme le soulignent les difficultés d’une bonne partie d’États Africains à faire face à des crises sanitaires comme Ebola.

Cependant, malgré ce morne tableau, de récentes prévisions prédisent un décollage sans précédent pour l’Afrique. En effet, l’Afrique est aussi un continent qui a montré une volonté réelle depuis le début des années 2000 de s’attribuer une étiquette plus respectueuse et digne de son histoire que celle de « continent pauvre ». Ajouter à cette nouvelle ambition les immenses réserves énergétiques (fossiles et renouvelables) dont elle dispose, pour entrer dans cette ère d’espoir.

Au-delà de la volonté manifeste des États africains et des ressources à leur portée, c’est avant tout le potentiel humain futur sur lequel repose cet espoir de décollage économique. En effet, les prévisions démographiques prédisent qu’en 2050, plus de 2 milliards des habitants sur Terre seraient des africains, soit environ

Drapeau de l’Union Africaine
une personne sur trois. Mais on pourrait se poser la question : en quoi cela peut-il représenter un avantage ? Tout d’abord, cela signifie selon les statistiques qu’il y aurait 20 millions de nouveaux entrants annuels sur le marché du travail africain, ce qui constitue un immense potentiel et une grande opportunité. Certains pays en ont dûres et déjà pris conscience. On peut particulièrement mentionner à cet égard la Chine, qui depuis quelques années a commencé à multiplier ses investissements en Afrique, par exemple dans le cadre de l’initiative du « One Belt, One Road » : la nouvelle route de la soie. Il s’agit d’un plan de financement massif d’infrastructures et de prise de capital dans des grandes entreprises de la région, lancé en 2013 par le président chinois, Xi Jinping. Au-delà des avantages commerciaux que cela procurerait à la Chine, cet investissement intense dans le continent noir, comme le laissent entendre Serge Michel et Michel Beuret dans leur livre La Chinafricque : Pékin à la conquête du continent noir, vise également à permettre aux entreprises chinoises de délocaliser une partie de leur activité en Afrique pour faire face à la hausse récente du coût de main-d’œuvre en Chine. L’Afrique pourrait être, dans les prochaines années, la nouvelle usine du monde, comme le suggère Le Monde en octobre 2017. Toutefois, certains économistes prédisent que le développement économique de l’Afrique ne suivra pas le modèle postindustriel de la Chine et des pays émergents. Le retard en matière de la Chine et des pays émergents. Le retard en matière de

De plus, malgré le fait qu’un certain nombre d’innovations financières intéressantes ont pour berceau l’Afrique à l’instar du porte-monnaie électronique M-Pesa (2007), le système financier africain reste peu compétitif à l’échelle mondiale. Les taux de bancarisation sont très faibles : seule une personne sur cinq possède un compte bancaire. Également, les modes de financement informels (prêts familiaux) restent les plus dominants, même si dans certains cas ils prennent des formes conventionnelles comme le « crowdfunding ». Toutefois, il conviendra de réformer en profondeur ces systèmes. L’actuel système se montre dans l’incapacité de concevoir des méthodes optimales pour orienter l’épargne intérieure, susceptible de considérablement augmenter, vers les projets les plus prometteurs. Développer un système financier performant semble être une nécessité pour assurer un décollage économique sans entrave.

Malgré tout, l’Afrique devra faire face dans les prochaines années à trois défis : la démographie, la finance et le commerce. L’immense augmentation de la population africaine, accompagnée par le développement économique, entrainera de forts mouvements d’exode rural. Plus précisément, il est estimé qu’une personne sur deux vivra en ville d’ici 2050, ce qui représente un défi important, puisqu’il faudra adapter la production pour pouvoir répondre à la demande de ces nouveaux citadins. Il s’avère également nécessaire de lancer dès à présent de grands projets d’infrastructures et de construction de logements pour anticiper cette arrivée. Il s’agit d’un point extrêmement sensible dont l’ignorance exposerait les villes africaines à des problèmes de tout ordre : fonctionnement de l’activité économique et sécurité.

“Au-delà de la volonté manifeste des États africains et des ressources à leur portée, c’est avant tout le potentiel humain futur sur lequel repose cet espoir de décollage économique.”

Le troisième et dernier majeur défi à considérer est l’organisation des marchés africains eux-mêmes. Le retard en matière d’intégration commerciale de l’Afrique est particulièrement dû aux fragmentations des marchés africains. Le nombre de petits commerces étant extrêmement élevé, les entreprises africaines sont dans l’incapacité à faire face à la concurrence mondiale, voire régionale. Ainsi, durcir la réglementation sur l’ouverture d’entreprises et encourager certaines des existantes à mettre en commun leurs ressources pourrait permettre aux pays africains d’augmenter leur part dans le commerce international.

Finalement, l’Afrique dispose certes d’un potentiel considérable pour embrasser une nouvelle ère de son histoire marquée par la prospérité, mais cela ne sera pas sans embûches.
1. What is your position today, and what are you working on?

I am currently a Professor of Industrial Organisation at the University of Barcelona (UB). My PhD in Economics duties involve teaching activities, as part of the PhD contract signed with UB.

My PhD in Economics research is focused on development economics, industrial organisation and regulation. My first paper, which is in draft version, consists of a natural field experiment in Ecuador, in which I estimate a causal effect between pesticides and newborns’ birth weights. For this, the GIS software has been very useful, and so far results are going as expected. The TSE Master in Public Policy and Development programme gave me the most complete tools to think objectively on identification strategies, self-selection problems, and many other obstacles one can face while doing econometrics. At the University of Barcelona, these skills were improved thanks to my advisor, J. Calzada. Despite the several challenges this paper initially faced, we managed to get important results with policy implications. My ongoing work now involves a model on industrial organisation and development economics.

2. What was your path from your Master’s graduation to this current post, and what are the key elements that helped you make your choice?

Doing the M2 PPD reinforced my vision to become a Development Economist, and this Master’s programme allowed me to discover the main problems that still need solving and how to do it. In the last term of my Master's, I was looking for universities whose research areas include development economics. The options were too few, and the PhD posts were highly competitive. Eventually, I got to contact the University of Barcelona, through a forwarded email from a close friend. The application process ended with a successful PhD acceptance with contract.

I would highlight three elements as very crucial for making the correct choice. First, talk and listen to your professors. A short talk with them can represent a life decision for you, and they can give you advice. Second, talk to your colleagues: they usually help with ideas and, as in my case, they can show you options you had not thought of before. Third, stick to your research (or professional) ideals. If you pursue what you truly want, anywhere can be a perfect place to enhance your career.

3. According to your professional experience, what are the most useful skills you obtained during your degree?

From an academia point of view, the skill I have exploited the most so far is social interaction. Doing research involves 80% of self-training and your potential advisor’s guidance. The remaining 20% consists of crucial interaction with your PhD colleagues, who have more experience and/or ideas, and you can get huge help from them as well.

From a professional point of view, after working three years in Deloitte & Touche Ecuador, I might say that being objective is the main issue. You must present high quality results (and analysis) in the shortest time possible. Identify your priorities: all clients matter, but you should keep a balance among your duties to succeed. And again, social interaction with the senior, the manager, and even the partner is important. The minimum opportunity to exchange qualified opinions can result in good considerations and promotion.

4. What advice would you like to give to the TSE students, or to the school?

“Don’t worry, be happy”, as Professor J.P. Azam told me once. “Try to look for an active advisor for your PhD career”, as Professor E. Auriol suggested to me. And “be curious, open your mind into different fields and try to set your goals to a potential contribution”, as Professor S. Straub advised me.

My own advice: do not limit yourself to your strengths or weaknesses in Economics, find what you would like to do for society and/or for your own life, and choose your sacrifices today wisely to enjoy the results tomorrow!
1. Where did you do your internship and what was your role?

I worked as a Research Analyst Intern at The Brattle Group in London for a period of three months. The Brattle Group is an international consulting firm focused on economic and financial analysis, predominantly in the utility and energy sectors. During my internship, I worked on several international arbitration cases, which constitute the majority of the cases the London office works on. The main case I followed dealt with investments in electricity production from renewable sources in an Eastern European country. I was in charge of gathering data, providing statistics, and producing graphs of the market demand and supply for green electricity patents. The final aim of our team for this case was to prepare a regulatory report describing the initial functioning and the subsequent collapse of the market, which are both relevant from an investor's perspective.

2. How did your studies at TSE help you during the internship?

My studies at TSE helped in several dimensions. First, the theoretical background acquired at TSE provided an essential starting point since I was already familiar with the concepts of competitive market equilibrium, the public goods dilemma, and the public goods dilemma. Indeed, a person who decides to change religions is subject to switching costs. Among other things, he has to take into account his own values and wellbeing, the required commitments, as well the reactions of his family, friends, and the whole community.

All my economist friends pointed to another problem: "Religions cannot be measured! There cannot be any useful data out there." I was worried about the same issue, but was surprised by the amount of data on religion that is actually available. Of course, however, given the restricted freedom of religion, the data is subject to a significant selection bias and false observations.

I am happy I decided to write a dissertation: not only did it allow me to gain self-confidence in many areas, but it also helped me identify some of my weaknesses that I will have to work on for the upcoming academic year. A dissertation might seem like the easy option as you can study a topic you want, work when you want, and take a day off when you want, but it also comes with a lot of responsibility. You alone are responsible for the advancement of your project and the quality of the final report. It may be time to accept the challenge!
and the related interventions. All these concepts were tackled in Industrial Organisation and Public Economics classes. Second, the many empirical assignments carried on during the year helped me understand the rigour and challenges of carrying out an empirical analysis. I believe that the most useful undertaking was the empirical project of the Applied Econometrics course, which gives students a chance to experience organising the analysis and the workload firsthand. This experience helps to develop a critical approach in analysing data and providing meaningful statistics, which proved useful during the internship. In fact, while most of the tasks were decided in the team meetings, the direct intervention and personal suggestions were highly appreciated due to the collaborative environment that characterises the firm.

3. How did you get the internship? What would be your advice for students looking for a similar internship?

I read the offer of the intern position on the company website and I applied in November. After a few months, a HR responsible contacted me for an interview. Later, I had a second interview with the Rome office for the same position. This application did not have a positive outcome; instead, I was put in contact with the London office recruitment team. A few months later, I was contacted for another interview with the London office and I was offered the internship position at the end of the process. My personal advice is to plan ahead and start applying early, preferably before December because companies may have different procedures and deadlines. At the same time, it’s a good idea to keep in contact with the people in charge, as it demonstrates a high level of interest and is highly appreciated.

Annie Krautkraemer, ACTeon Environment

1. Where did you do your internship and what was your role?

I did my internship at ACTeon Environment in Colmar, France. I contributed to a research project regarding aquatic biodiversity in the European Union called AQUACROSS. Within AQUACROSS, there were eight different case studies in different geographical regions that are facing threats to biodiversity. I worked on the Danube River case study, whose main threat to biodiversity is hydromorphological alterations to the river, or put simply, changes made to the shape of the river (hydroelectric dams, dykes, etc.). These changes impact how the river is connected to wetlands, which consequently affects the ecosystem services that these water bodies provide, such as water filtration and flood prevention. ACTeon was responsible for conducting the efficiency analysis of ecosystem-based management policies aimed at preserving aquatic biodiversity, and I contributed to this analysis.

2. How did your studies at TSE help you during the internship?

The courses in ERNA were helpful because we learned about environmental valuation and cost-benefit analysis, both of which were pertinent to the project I worked on. Environmental valuation was useful because we learned about different techniques to value non-market goods like ecosystem services, and about their advantages and drawbacks. To carry out an efficiency analysis of the policy, we will conduct a cost-benefit or cost-effectiveness analysis, depending on what information is available, so it was very useful to have a course on cost-benefit analysis.

3. How did you get the internship? What would be your advice for students looking for a similar internship?

I had seen an internship offer from ACTeon on the alumni network site, and then went to their website and found a couple more offers, including one in English that interested me. I applied by sending a CV and cover letter, and then had a Skype interview. I would recommend checking out ACTeon’s website around December or January to see what internships they are offering. Another tip I have is to use the alumni network to see where other people are already working: for example, those interested in environmental economics can use the directory to see where past ERNA alumni are working, if they have updated their profiles.
1. What types of skills do you most value in an Economics and Statistics student?

The skills that we look for when recruiting an intern, a trainee or a recent graduate depend on each position. In Economics and Statistics students, we look for good modeling skills and the ability to use analytical tools, an understanding of how financial markets work, the ability to identify and manage operational and financial risks, and the ability to use and interpret various statistical models, to mention only a few examples of the technical skills we look for. However, we are also looking for people with a certain amount of soft skills, such as the ability to work in teams, to listen and to explain tasks in simple terms. The candidate should also be organised, rigorous and able to summarise complex issues clearly.

2. What is the best way to apply for an internship in your organisation?

There are roughly 300 types of jobs at BNP Paribas, some of which did not exist two years ago. From data scientist, agile coach to IT inspectors, the new jobs created by the technological revolution are broadening the range of careers in our company. Each year, we recruit nearly 2,000 trainees, 1,500 interns and 300 VIE (Volunteer for International Experience). All our offers are on our careers website: group.bnpparibas/emploi-carriere. The student should apply directly to the position of interest online. Before applying, it is important to ask yourself the right questions: why am I applying? Why this position? What is the link with my studies?

3. How can a candidate stand out when applying to your company?

We are not looking for people who think they know everything, but students with curiosity and potential for growth within the company. To stand out, we advise candidates to know what their professional project is, and to be able to talk about it. To this end, it is important to inform yourself about the practices and evolution of the job in question. Social media such as LinkedIn and Twitter are a considerable source of information. Furthermore, it is important to understand what the interviewer is looking for, to avoid slip-ups and prepare answers for certain questions! It is also crucial that the candidate shows their desire to join by using previous experiences as examples, with concrete actions and results obtained in the past. Last but not least, be yourself, stay natural – it is the best way to transmit your enthusiasm and motivation.

4. What are the things to avoid when applying?

Most importantly, an effective application is one that corresponds to the needs of the position. The CV must be clear, concise and understandable by everyone (by the HR people but also the people working in the field). Don’t hesitate to proofread yourself to make sure that there is no important information missing, such as dates of availability and the title of the position that you are applying for. You can also emphasise some key skills that define you. Avoid including leisure activities that do not add any useful information about you or your skills. Finally, be honest, it is better to have a gap in your CV than some made-up experience.

BNP Paribas has maintained long-term relationships with the world of academia so as to develop a privileged relationship with students and thus attract those who best fit our needs. The Toulouse School of Economics is of course one of these schools. The excellent degrees on offer are particularly appreciated in our business lines.

Thus, we have two objectives: first, to be involved in the content of the courses taught at TSE to allow them to evolve and to better fit the needs of our profession, and secondly, to promote banking careers to the students and ensure the recruitment of candidates with significant potential for the BNP Paribas Group.

“Before applying, it is important to ask yourself the right questions: why am I applying? Why this position?”
How economists can be more involved in the startup world

by Sarah Lacroix

Sarah Lacroix graduated from the ERNA master in 2016 and moved to Australia. She had experience in event management while at TSE (she was a TSE student ambassador before TSE started recruiting them!) and started working in a company organising conferences about energy. She is now the community and events manager for EnergyLab in Sydney, the leading start-up accelerator in Australia for CleanTech and Clean Energy which run programs in Sydney, Melbourne, Brisbane, Canberra, Cambodia and India.

Start-ups are all over the news and seem to be the new thing everyone wants to do. I just finished a short course on entrepreneurship at the University of Technology in Sydney, and one of the first things the facilitator told us was: “Start-ups are everywhere and now everyone wants to be an entrepreneur. 10 years ago, people wanted to become investment bankers or traders, now they think founding a startup will make them a millionaire.” Start-ups are young companies growing rapidly. We tend to associate start-ups with smart phone applications or technology (tech), but there is much more than that. Basically, for every problem, there is a start-up trying to solve it. There are social enterprises such as start-ups selling you subscription boxes, startups making processes more efficient in the medical or legal sector, and so on.

The list of sectors that put “tech” at the end of their names keeps growing, and it has been a privilege for me to work in one of these sectors: CleanTech. CleanTech stands for Clean Technologies (not technologies that clean things). While there is no strict definition of CleanTech, the technologies that belong to this sector include but are not limited to clean energy generation, batteries, smart energy, energy efficiency, clean transportation, sustainable farming technologies, waste technologies, and bio fuels. I really love working in CleanTech, where our main motivation is technical progress to lead the way to a 100% carbon free planet. Working with CleanTech startups taught me a lot about entrepreneurship.

One cliché about tech start-ups is that you need to be an engineer to be a start-up founder, like Mark Zuckerberg. This is wrong: most engineers can build products but will struggle when it comes to selling it. I know CleanTech entrepreneurs who previously worked as lawyers and marketing, or as finance executives. Some of them learned how to code to build their products, while some hired a developer and used their skills in another area of the business.

TSE does not have an entrepreneurship path, but we learn very valuable things that can help us become successful entrepreneurs. As economists, we understand what competition means and what a price is. Entrepreneurs do not really derive production functions every morning to define the prices, but understanding that the price is the point where supply equals demand is really important. I see too many people defining the price solely based on the cost of the product without thinking about the demand side.

Economists also understand markets really well. Finding the differentiation point and understanding competition through a game theoretical perspective can be very handy when you start a business. While a lot of what we learn is very theoretical, the way economists think about problems is very valuable. Economics is probably the discipline in social sciences that uses the word “optimise” the most, and that’s a very unique (and useful) way to think about problems.

So how can you learn more about startups and entrepreneurship?

It is a very hot topic, and it is easy to find books, podcasts or workshops about it. My favourite podcasts are “How I built this” from NPR and “Masters of Scale” with Reid Hoffman (co-founder of LinkedIn). The Freakonomics radio also has good episodes. If, like me, you are interested in Clean Energy, I would definitely recommend listening to “The Interchange” and “Energy Gang” from Greentech media. They are really good to listen to on your daily commute, while you’re cooking or on a road-trip! Among the books on entrepreneurship, I read She Means Business by Carrie Green and #Girlboss by Sophia Amoruso. If you see a trend there, that’s because I’m very passionate about getting more women into entrepreneurship (one other great book about women in leadership is Lean In by Sheryl Sandberg). I co-founded a program at EnergyLab called CleanTech Women to support more women on their entrepreneurship journey: our free pilot program is currently running with ten passionate women learning how they can make a startup out of their green ideas.

One last thing I would recommend for aspiring entrepreneurs is to participate in Hackathons and start-up weekends. These are great ways to test your business ideas. Moreover, the workshops run by the organisers are always fantastic. Special mention goes to Climathon by Climate KIC, which was organised over 100 cities around the world in 2017! You can also meet passionate people and maybe potential co-founders in these events. I organise about five hackathons per year for my work and I also attended three in my free time. They were always very valuable, and I learned something new every time.
We are looking for advertising partners for future issues of The TSEconomist.

Please contact the.tseconomist@gmail.com for more information about becoming an advertising partner.
The BDE is a solid squad organised around different projects and activities. One of the main objectives is to facilitate the integration of newcomers and energise student life. The first step was taken with the launch of the Buddy Program at the beginning of the summer: We hope you have found a match. If you have not heard about it, it is not too late to catch up and find yourself a buddy who will help you with your arrival at TSE, or for you to help a newcomer if you are already a student here.

To start the year off properly, we have prepared an unforgettable integration week full of surprises, followed by the traditional integration weekend, better known as the WEI. This year, we have decided to take a bus to the countryside and enjoy the last days of summer in a huge Domaine. The BDE holds many events throughout the year, from the casual quiz night to the fancy Gala, as well as post-exams parties. Another awaited big weekend takes place in January in the Pyrenees: Ski, spa and 2-night parties to start the second semester.

We hope that you will join us to organise all these events - we need people, and the more the merrier. The BDE is open to everyone and offers a wide range of opportunities to get involved (designing goodies, approaching partners, taking pictures, communicating on social media, playing ping-pong, etc.) with joy and cheerfulness. Come by the Bureau, it is open 24/7 in MC205 and we will be glad to tell you more. You can also follow us on Facebook (https://www.facebook.com/TSE.BDE/) or on Instagram (https://www.instagram.com/bdetse/) to keep up with what is going on at TSE.

Cheers,
Your beloved BDE.

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Ever since its creation in 2014, Say It Aloud has pursued a main goal: Giving voice to students and allowing them to speak. Beyond simple academic skills, public speaking and debating are required for any citizen who wants to take part in democratic life. However, who can boast having been born a fine speaker? Even the best speakers have had to learn.

To give a voice to students, our association is built on two main activities. First, Say It Aloud organises between three and four conferences a year. This year, we organised our first French speaking conference about new methods in education. We also welcomed members of the Gawad Kalinga association, based in the Philippines, to a roundtable on social economics, this time in English. Because of the news surrounding Bitcoin, we wanted to deal with the topic for our last conference of the year, and thus invited two experts on the subject, attracting many students to the event. Each conference allowed TSE students to discover new subjects or improve their knowledge on an issue.

In addition to this, Say It Aloud also offers a weekly public speaking workshop any student can take part in. During those sessions, students can improve their public speaking and debating skills, and learn how to manage stress. Many people are likely to be afraid of speaking in front of a large audience, and the objective of Say It Aloud is to allow students to take the plunge. To facilitate this, the workshops are run by members of the association in a friendly and relaxed atmosphere. For the most motivated students, these training sessions can then be put into practice with team debate competition against other universities. These matches are perfect opportunities to meet other associations like ours!

This year, many projects are scheduled, and we will need people to carry them out! Our association has been created by a group of friends and we want to keep this spirit all along the evolution of Say It Aloud. Taking part in associative life should be a personal choice, allowing you to blossom and to feel good. Our philosophy is that everyone is free to participate at their own pace – total devotion is not required – as you must take pleasure in what you do. Whatever your mother tongue is, and whether you are interested in only part of our activities or you want to be fully engaged, you will always be welcome at Say It Aloud!
On Campus

BDS TSE: new board, new goals

The aim is clear: Facilitating the integration of students within the school through sports events and taking care of their health by offering organic baskets. This integration will be affordable for all: The BDS TSE places much emphasis on a wide range of activities, at attractive prices. We make a point out of proposing activities never exceeding the sum of €10.

Consequently, all the students will have the possibility to discover new activities, many of which will be implemented for the first time: A JustDance competition, an escape game afternoon, karting, and acrobranching parks… Moreover, after the success of the last Olympiads Edition with the participation of a team of teachers, the BDS TSE would like to renew its willingness to unite all TSE members (teachers, administrative staff and students) around some sports activities.

Now get some rest and enjoy your summer break because the BDS staff will be waiting for you in September, as motivated as ever!

BDS TSE: new board, new goals

TSE Junior Etudes is a student organisation that works as a consulting firm, hiring students to take what we were taught at TSE and apply it to solve problems for companies. While our aim is to provide real solutions to these firms, our main goal is to provide TSE students with a real insight into consultancy, giving them a real taste of a company's environment, and getting paid along the way! We realise that it is sometimes hard for students to imagine what an economists' job consists of, and we provide our members with a real professional world experience, thus smoothing the transition between student and professional life.

The way we work is simple. We have our consultants who work exclusively on one project: This can be a range of tasks, from simply filling in surveys to more complicated tasks, such as developing a full econometric model. We recruit students from L3 to M2. Our consultants not only develop the skills learned at TSE, but also earn money by doing so – much like doing a short internship! We recruit our consultants throughout the year, for the projects we have from our clients, so stay connected to find out more!

But this is not all: our Junior Entreprise is mainly run by active members who work on the administration of the company, developing their managerial skills and making friends along the way, because we're an association in the end. Our active members get to have the most fun, going to congresses and events with other young entrepreneurs. These are both recreational, such as going to a party, and educational, like having different workshops on communication, accounting, or how to do your best in a job interview. These congresses are organised by other Junior Entreprises of our region and they are an excellent opportunity to get in touch with other junior entrepreneurs, to learn new skills or to get in touch with our premium national partners: Ernst & Young, BNP Paribas, Engie, and Alten.

Our company is divided into five teams: Accounting, who manage the accounts and day-to-day operations of the company; the Studies team, who find clients and help on the managing of the studies; the Audit team, who ensure that our projects meet the best quality; the Communications team, who manage our social media and work on improving the image of the company; and the Human Resources team, who make sure our consultants have enough skills to correctly develop the project. Even if these teams work separately, they are all vital to the success of the association and they all work together for the correct functioning of the association.

Our main recruitment is in September, when we recruit mostly for active members who will take part in the administration of the company. If you're interested in being a consultant, don't hesitate to contact us through our social media or directly at our office (MF 002). We publish all our employment offers on the Facebook group of each class and on our Facebook page, so you just need to stay connected to get our latest news. You don't need to be an active member to be a consultant and you can definitely be a consultant if you're an active member, so don't hesitate to do both!

Being a young entrepreneur can either be the golden star to a flawless résumé or the starting point of a great career, and a sure asset in a fast-changing world. Don't hesitate to contact us to know more!
When it comes to trophies, it isn’t just about sports. On the eve of the Winter holidays last semester, students and professors celebrated the end of midterms at the memorable TSE BDE Gala, an evening filled with champagne, dancing and great photo booths.

At this annual event, the TSEconomist asks the students of TSE to vote for the professors who made their year, going above and beyond to spread their passion for their subjects. These individuals are often not only talented teachers, but also a source of inspiration to our student body, reminding us of why we are here and urging us to persevere. It is a privilege for the TSEconomist to reward them every year at this celebratory event.

Here are the winners of this year’s Teaching Awards:

- **L3 Teacher of the year:** Philippe Plazanet
- **L3 TA of the year:** Jad Beyhum
- **M1 Teacher of the year, main subject:** François Poinas
- **M1 Teacher of the year, electives:** Alexandre de Cornière
- **M1 TA of the year:** Roberto Sarkisian
- **M2 Teacher of the year:** Yassine Lefouili

While we here at TSE are all fond of numbers, some things can only be expressed in writing... Here are some comments from the student body:

**L3**

- “¡Sobresaliente Alberto!”
  On Alberto Grillo
- “He is the boss. Best teacher ever”
  On Matthew Paddick
- “His explanations are clear like water”
  On Jad Beyhum
- “Simply perfect”
  On Laurent Bakri
- “Mention spéciale pour sa gentillesse!!”
  On Christine Maurel

**M1**

- “Best teacher I’ve ever had! Committed to student life, very clear, great professor and human first”
  On François Poinas
- “A big thank you to Mr. Seabright who helped me remember the reasons why I’m passionate about economics :)”
  On Paul Seabright
- “Very energetic and enthusiastic teacher”
  On Matteo Bobba

**M2**

- “One of the best teachers of TSE, he was always available to help any student”
  On Yassine Lefouili
- “I really enjoyed classes because his enthusiasm is contagious”
  On Sylvain Chabé-Ferret
- “He has a great way of capturing your attention throughout the whole class!”
  On Nicolas Treich
- “He is an exceptionally talented teacher of maths, not only because he deeply understands what he’s teaching BUT because he can communicate theorems and 3-hour proofs in a way that you feel enlightened and curious about everything after his class. He should teach everyone else how to teach”
  On Jérôme Bolte

And one last comment:

“Thanks to everyone for your time and effort! :)”
My name is Alfonso. I have been part of the magazine since my M1 two years ago, and am now a student in DEEQA. This year I will be the editor-in-chief and will try to continue the amazing work the magazine has been doing in the last years. I invite every student to join us, there are plenty of areas you could work on in the magazine, such as writing, proofreading, designing, or helping in organising the several events we will have during the year. Do not hesitate to talk to any of us to know more about the great experience that is being part of the TSEconomist team.

My name is Joël; I have been at TSE since my first year but only joined the TSEconomist last year, during my M1. I have written articles in every issue and it has been a good way for me to get a first grasp of topics I was not immediately familiar with. This year I will be part of the M2 EEE, and will also be the treasurer and the head of organisation in the TSEconomist board. This means I will be in charge of organising the various events we propose each year: the Coffee Talks, launching lunches, teaching awards and the TSEconomist talk. The Teaching Awards and launching lunches are already an established tradition streamlined by my predecessors. My main objective is, as such, to increase the number of Coffee Talks and offer more diverse issues to our audience.

My name is Gökçe and I am head of communications. I am a DEEQA student this year and it is my second year at both TSE and the TSEconomist. Last year, I was a proofreader and a member of the communications team. Being part of the magazine is a really fun escape from the courses and has been a rewarding experience where I could see my efforts turn into a product appreciated by the TSEconomist's growing audience. One goal of the communications team is to ensure that the value created reaches our readers all over the world from France to India, Japan to Honduras! Our team also works closely with the organisation team for the promotion of the upcoming events. If you want to contribute to the TSEconomist through online social and professional networks, and work towards further growth of our Facebook, Twitter, LinkedIn and Instagram accounts, you are more than welcome to join the communications team!

My name is Veera and I am the new head of design. I joined the TSEconomist in L3 and tried out several tasks, from proofreading articles to buying cookies for coffee talks. My main contribution that year was updating the website, but I soon discovered the even more fascinating world of design. The designers are there to make sure that people choose to grab the magazine and enjoy the reading experience. Good design relies on creativity and imagination, as a counterbalance to the rigorous models and theorems we study in our classes. After a gap year, I returned to the magazine and continued to improve my skills as a designer. The success of our design team is based on continuity: everyone can learn how to design, but the true progress and quality comes from the knowledge sharing from one “generation” to another. I have been lucky to learn from many talented designers in the TSEconomist and I hope I can pass on that experience to all the newcomers this year.

My name is Valerie and I am this year’s deputy editor. Having completed my Bachelor’s degree at McGill University in Canada, I arrived at TSE in M1 and am now in M2 ERNA. As a new student, the TSEconomist was a definite highlight of my M1 year and has enriched my TSE experience in many ways. I contributed last year as a section editor and to the inauguration of coffee at our Coffee Talks (you’re welcome). Don’t hesitate to reach out to me about opportunities in writing or proofreading – much like our social events, when it comes to the creation of our magazine, the more the merrier!
The TSE Careers team prepares students for their future careers by offering guidance and support in career development and help students to learn, grow and build skills in a challenging job market.

Talking about our studies and experience is an immense challenge so TSE Careers have set up the “Professional Development” course for first and second year Master students. This course is made up of 8 sessions and will help students build their LinkedIn profile, assess their personality type, understand their strengths and weaknesses to confront the job market successfully and to find the perfect internship.

The TSE Careers team will also organize on the 23rd November its annual careers forum (Business Networking Day) which will be held on campus. This event is the ideal opportunity for students and graduates to discover job and internship opportunities and to meet a wide range of TSE alumni who are looking to recruit and are ready to share their experiences. Save the date!

Moreover, the school is strongly committed to giving students the opportunity to meet business economists and researchers from diverse sectors, which allows them to broaden their economic and statistical background. TSE Careers organizes throughout the academic year special lectures by professionals “Business Talks” and by researchers “Academic Talks”. In addition to these talks three public lectures are given by renowned international speakers, in collaboration with the interdisciplinary research institute IAST (Institute for Advanced Study in Toulouse) not forgetting our student associations who organize excellent debates and a public lecture.

Consult the TSE website for the full calendar!

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<tr>
<th>DATE</th>
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<th>TALK</th>
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<tr>
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<td>17h-18h30</td>
<td>Inaugural Lecture</td>
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<td>27/9/2018</td>
<td>18h-19h30</td>
<td>Distinguished Lecture</td>
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<td>17h-18h30</td>
<td>Business Talk</td>
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23/11/2018 Business networking day 2018

Participants 2017: