

viaSarfatti 25

BOCCONI UNIVERSITY, KNOWLEDGE THAT MATTERS

Issue 1-2 / January-February 2020

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✓ Alessandro Profumo's take on managing by innovating

✓ Interpreting the world thanks to grant-winning Bocconi research

✓ Get to know Alumni through the Ferdinando Bocconi Questionnaire

The age of AI

Artificial Intelligence will not outclass humanity
Understanding it is key to unleashing its potential



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YouTube



Science makes sense of complexity

For two years in a row, the Nobel Prize for Economics has been awarded to scholars that make us aware of the complexity of the issues facing modern societies. William Nordhaus has been acknowledged for his positive contribution to world climate change, Abhijit Banerjee, Esther Duflo and Michael Kremer for their seminal work on the fight against poverty.

At the same time, the advent of artificial intelligence amounts to one of the main challenges for economics and the social sciences taken as a whole, both from the theoretical point of view and from that of policymakers and managers. The prejudice impeding the diffusion of the digital transformation and, with it, of artificial intelligence is rooted in the fear of job losses, skepticism towards increasingly invasive technology, with the related impacts on privacy, and the alienation of whole generations.

In the face of the change that technological evolution, climate change and inequality are imposing, Universities must break from the tradition that would keep disciplinary areas closed in on themselves, and instead take the route of integrating different knowledge, developing the skills for continuous learning and critical thinking. That drive is the only force truly capable of overcoming the obsolescence of skills in a world travelling at the speed of light; that route is all the more decisive in a reality dominated by big data and information overload. Only by making new managers and citizens literate in the new languages (digital, artificial intelligence) and in the new

needs (those to which the company purpose aims to respond) will we be able to overcome the challenges we face.

The challenge of knowledge integration will be won by opening up to complexity, absorbing its influence and knocking down barriers.

At Bocconi, following the motto we coined: "Knowledge that matters" – which became a work of contemporary art by artist Lorenzo Petrantoni outside the Röntgen building in October – our ambition is to contribute to these changes and these cultural,

methodological and application-related innovations in order to provide viable answers for the future of students, researchers and citizens.

We can take on this challenge to be a driving force for change, relying on a solid tradition and the results that Bocconi has achieved in all its areas of expertise in terms of research production, quality of teaching and impact on the world of work. In this regard, I mention only three indicators: international rankings, where we are fourth in Europe and sixteenth worldwide in Social Sciences and Management according to QS; the ability to attract research funding in which we rank first in Italy with 37 ERC grants hosted; and the employment rate of our graduates, 95.2% of whom are employed one year after graduation, with 27.5% employed abroad.

Gianmario Verona, Rector



VIDEO

The new Bocconi campus was inaugurated in November in the presence of the President of the Italian Republic **Sergio Mattarella**. The buildings, characterized by transparencies that enhance the concept of openness, were designed by **Kazuyo Sejima** and **Ryu Nishizawa**'s SANAA architecture firm.



VIDEO

The Bocconi Knowledge playlist on YouTube displays Bocconi scholars highlighting the main points of their cutting-edge research, in plain language and with the aid of infographics. Follow the latest developments in economics, management, law, social sciences and data science.





The buildings are transparent, with smooth lines, and are equipped with the most advanced technologies for sustainability and teaching

Open to the city: the new

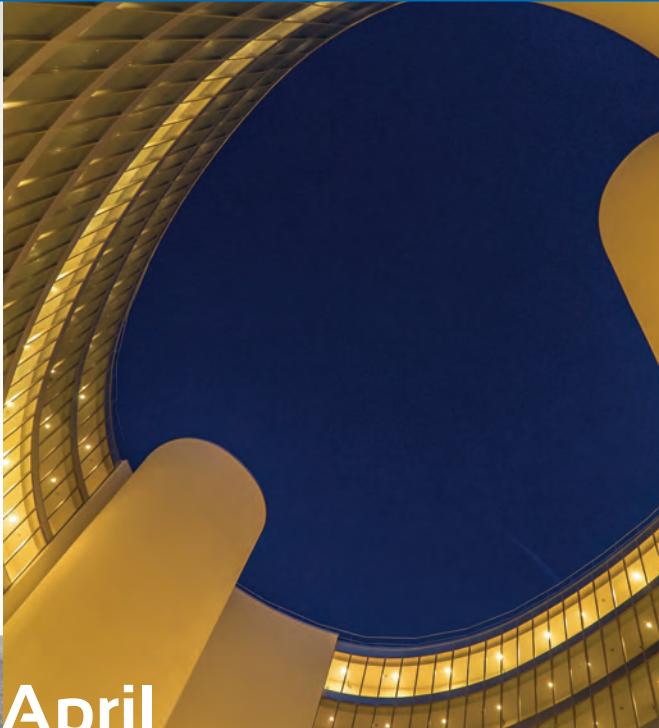


Bocconi campus

VIEWPOINTS



March



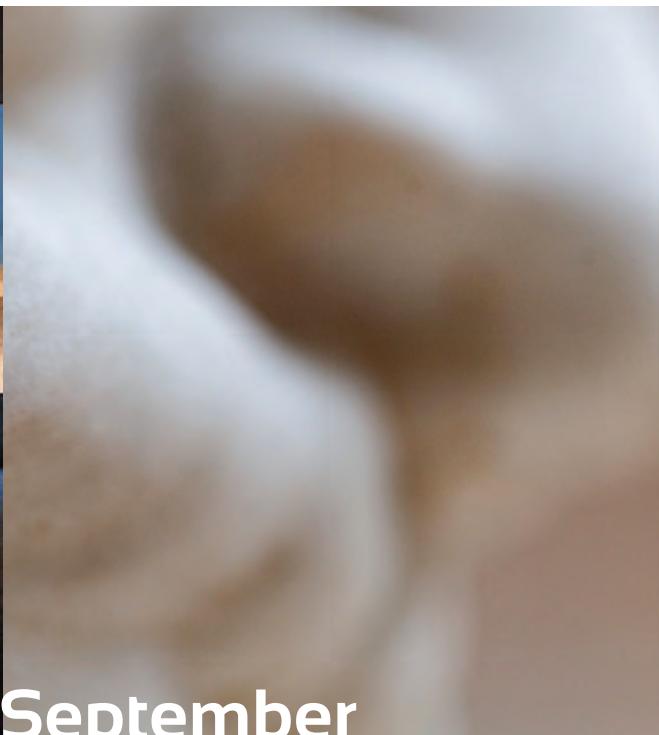
April

In color or black and white

A selection of the best Bocconi imagery, as published in the 2019 issues of viaSarfatti25. Icor



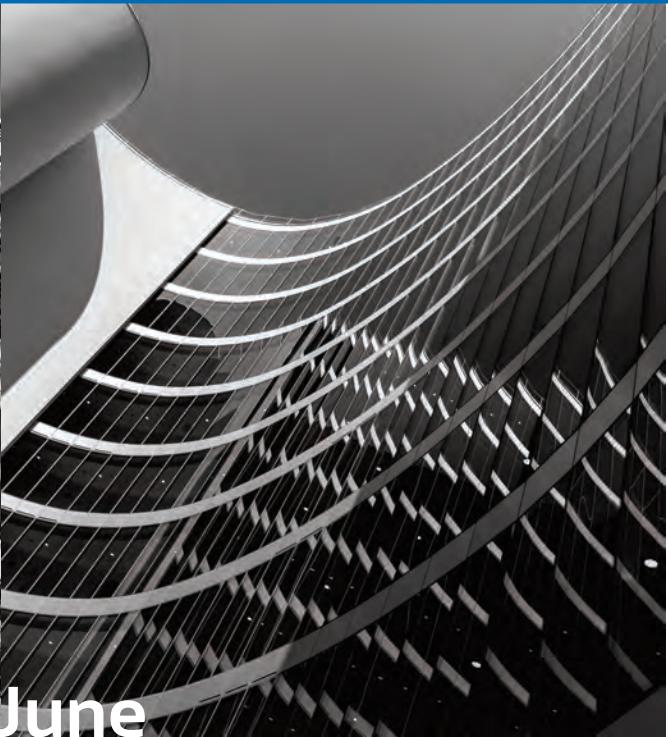
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September



May



June

white, one year with us

anic places, small details, sport, people and cultural events that marked the last 12 months



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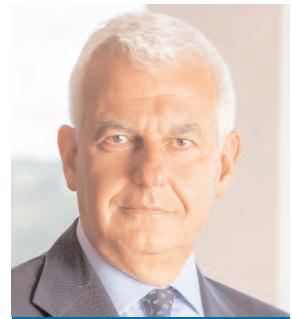
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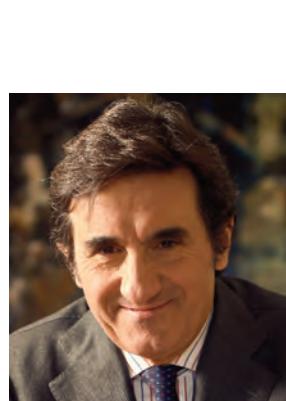
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Alumni Leaders
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Questionnaire

Two new professors burnish Bocconi

Completely different areas, one common decision. De Vries and Trevisan discuss why the University of Bocconi is the right place for them

CATHERINE DE VRIES SHEDDING LIGHT ON EUROSKEPTICISM

Catherine De Vries, a Full Professor who joined Bocconi Department of Social and Political Sciences on January 1, calls herself “a sort of Brexit refugee.” A native of the Netherlands, she worked for almost ten years in the UK (University of Oxford and University of Essex) before leaving the country in 2018 for



Catherine De Vries

Vrije Universiteit Amsterdam. “I decided to move to Bocconi in search of a university in Continental Europe with a truly international reach,” she says. A prominent political scientist with a vibrant presence in major international media, her research interests stem from her PhD dissertation at Vrije (but with a supervisor from University of North Carolina at Chapel Hill, who introduced her to the American academic environment). Her work focuses on protest and skepticism towards the EU. “I have progressively added layers to the same interest,” she says. “In the aftermath of the financial crisis, for instance, anti-corruption sentiment played a big role in the fall of some European governments and I started studying public opinion

from a wider angle. My studies on remittances also come from the observation of what happens with immigrants in EU countries.”

Her work on remittances, published in the American Political Science Review, shows that when people flee authoritarian regimes and send remittances to their families, they produce the unintended consequence of empowering the very same regimes they are running away from: when remittances increase, people attribute their wellbeing to the regime, and when they shrink, people blame it.

As for political corruption, Prof. De Vries wants to understand why it so often goes unpunished. “We find that, in order to be punished, corruption must display a strong

deviation from what voters think to be the norm and must be coupled with a major event, like the sinking of the ferry in South Korea in 2014,” she says. In a successful and much-discussed book published in 2018, Prof. De Vries summarized her thinking on Euroskepticism. In May 2020 she will publish a book on political entrepreneurs. “We borrow Schumpeter’s theory on innovation and apply it to political change,” she says. The analysis shows that successful political challengers jointly adopt two strategies. First, they choose a mobilizing issue that drives a wedge in the traditional left-right divide. Second, they prevent imitation coming from dominant parties or new rivals by destroying their competence in the eyes of the public.

GIG ECONOMY, INEQUALITY, MACHINE LEARNING, FINANCIAL MARKETING:



Tracy Anderson, from the UK, graduated from the London School of Economics in 1999 and worked for several years in non-academic research institutions before returning to university for a PhD at Wharton. She conducts research in collaboration, worker mobility, and careers at the Department of Management and Technology.

Cristoph Feinauer joined Bocconi in February, as Assistant Professor at the Department of Decision Sciences. German with a doctorate from Politecnico di Torino, before joining Bocconi he worked at Université Pierre et Marie Curie Paris and at a German company, as a researcher of machine learning; his area of interest also at Bocconi.



Mattia Fochesato, a scholar of economic history and inequality, did his doctorate at the University of Siena. He then went to SciencesPo as a Research Fellow, and was a Post Doctoral Associate at New York University Abu Dhabi. He joined Bocconi’s Department of Social and Political Sciences from the University of Basel, where he was an Assistant Professor.

Luisa Gagliardi has returned to Bocconi, where she graduated, from the University of Geneva, where she was an Assistant Professor. With a PhD at IMT in Lucca, she has joined Bocconi’s department of Management and Technology. Her studies look at the intersection of economic geography, innovation strategies and international business.



Marlene Jugl, German, has joined Bocconi after a PhD at the Hertie School of Governance in Berlin. She will carry out comparative studies on politics and public administration at the Department of Social and Political Sciences.



Sungkyun Moon, a Korean with a PhD from Singapore Management University, has been conducting research at the Department of Marketing for several months. Moon studies the financial implications of marketing campaigns, and of the disclosure of marketing costs.

ni's international appeal

iversity offers them the right environment to continue their research

LUCA TREVISAN IN ITALY WITH ERC GRANT

Awidespread stereotype portrays academics as people who deal with theories that work fine on paper, but not in practice. **Luca Trevisan**, a computer scientist and a Full Professor at the Department of Decision Sciences from September 2019, does the opposite: he looks for a theoretical explanation for mathematical techniques used in computer science that work well for reasons that nobody understands.

After his degree and doctorate in computer science in Rome, Prof. Trevisan has had an enviable, twenty-year academic career in the United States at MIT, Columbia, Berkeley and Stanford. Now he has returned to Italy with an ERC grant. "At Bocconi, there is a convincing STEM development project

with a long-term vision and substantial resources, making it the most attractive place in Italy for a computer scientist working in the US, and one of the very best in Europe," he says.

When he was a postdoc researcher at MIT, Luca Trevisan made a vital contribution to understanding randomness extractors, which are important for creating cryptographic keys. Years later, during his time at Stanford, he addressed the issue of network analysis through linear algebra. In a very important work, he demonstrated how methods based on linear algebra could detect subsets of nodes with particularly dense (frequent) connections - an important thing to detect, because

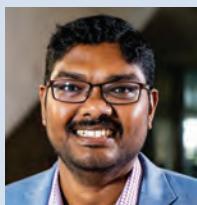
connections density is caused, in all probability, by a commonality of interests, by some affinity.

Another strand of Trevisan's research looks at the problems for which there are no algorithms that provide a solution, or at least not within a reasonable time. "This is a positive feature when applied to cryptography," says Prof. Trevisan, "but negative if we want to solve the problem. Knowing that there is no solution can, then, help us get around the problem somehow, perhaps by looking for algorithms that approximate the solution, without giving an exact one." Prof. Trevisan has made an important contribution to the development of techniques that can demonstrate the non-existence



of algorithms capable of approximating a solution. In 2012, Luca Trevisan celebrated in an original way, on his blog *in theory*, the centennial of the birth of Alan Turing, a brilliant forerunner of computer science, cryptography and AI, and an openly gay man. "He lived in a time when it took courage on the edge of recklessness," he says. "So, I invited a number of gay and lesbian colleagues to write posts talking about how things have (or have not) changed since then."

ASSISTANT PROFESSORS FROM AROUND THE WORLD BRING DIVERSE EXPERTISE



Giuseppe Primerano, an administrative law scholar with a PhD at Tor Vergata University, has become an Assistant Professor at the Department of Legal Studies.



Josef Sigurdsson is a recent recruit at the Department of Economics. He studied in his home country Iceland and at the University of Warwick before receiving a PhD in Economics at Stockholm University. His main research focus is on labor economics.



Xiaoxi Wu is from China, with a PhD at Lancaster University. She has become an Assistant Professor at the Department of Accounting. Her area of research is the effects of financial communication, using tools that allow her to analyze the language and the personality of the actors involved.



Giacomo Zanella has been Assistant Professor at the Department of Decision Sciences since last September. A Bayesian statistician, Prof. Zanella has a PhD in Statistics from Warwick University and was a post-Doctoral Researcher at Bocconi.



Sandeep Pillai is from India and has conducted his higher education studies in Canada and the United States, with a PhD from the University of Maryland. He combines management and history, with studies on the evolution of the automotive industry and business strategy. He's an Assistant Professor at the Department of Management and Technology.



A Look at 20 ERC Study Grants

Bocconi and the European Research Council have come a long way together since 2007

Grants are awarded on the sole criterion of scientific excellence by the European Research Council. In 2007, when the European Commission established the European Research Council, Bocconi was in the middle of an ambitious transformation plan to become a modern university; an institution that, in addition to

teaching, was a center for the development of innovative thought in its areas of expertise through continuous research by the teaching faculty. The European Commission aimed to promote basic research all over the continent. Since then, the two institutions have come a long way together. ERC morphed from a project into a large organization, which has

financed the best European research with billions of euros and has influenced the way in which many member states organize their research grant programs. For Bocconi, the ERC is an authoritative organization that has contributed to the University's legitimization as a top player in Europe by funding many of its projects. Bocconi is now able to

select and attract the best talents, its researchers regularly publish in leading scientific journals, its graduates attend the most prestigious PhD programs and its PhDs can complete research at leading institutions. Since the ERC's inception, Bocconi has been awarded 37 grants; in these pages, we highlight the 20 ongoing awarded projects.

Salvatore Nunnari Tracking How 20,000 Decide on Politics

In the last 10 years, Europe has seen seismic electoral shifts without a clear, common trend. If the rise of populist parties and the intensification of ideological conflict and polarization are the most striking features, in some cases right-wing movements emerge as winners, in other cases left-wing ones, while in countries heavily affected by the Great Recession, such as Ireland and Portugal, populism didn't take root at all. **Salvatore Nunnari**, an Assistant Professor at Bocconi's Department of Economics, obtained a ERC Starting Grant for POPULIZATION (Behavioral Foundations of Populism and Polarization), a research project using behavioral political economics, with a mixed methodology that includes both theoretical models and an original dataset.

"I want to study, on the one hand, how people's preferences and cognitive abilities affect their electoral choices and, on the other, how politicians react to voters' behavioral factors and unstable preferences," Prof. Nunnari says.

In order to reach the first goal, he will set up a European Preferences and Cognition Dataset (EPCD) surveying around 20,000 people from Italy, France, Germany, Poland, Spain, and the UK. "I will collect behavioral data about people's preferences over time – up to now, this has always been done in laboratory settings, often among university students. This will allow me to follow the same individuals over an extended period of time, thus drawing a dynamic picture, trying to understand whether heterogeneity in behavioral factors correlates with

political behavior and whether major public events and personal history affect behavioral factors." The second part of the project will study politicians' behavior. "In times of low-cost big data, representatives and candidates could easily collect data on their voters," Prof. Nunnari explains. "I want to understand whether they are able to leverage voters' behavioral characteristics to reach their own electoral goals, not necessarily aligned with general welfare."



Paolo Pinotti How Laws Can Influence Organized Crime

Paolo Pinotti, the holder of Bocconi's Endowed Associate Professorship in Economic Analysis of Crime, has been awarded an ERC Consolidator Grant of about €1.8 million for the research project CLEAN (Clean Evidence on Dirty Deeds). The ERC-funded project has four parts.

The first part analyzes data on infiltration in public procurement for road works in Italy, provided anonymously by intelligence services. It seeks to discover the most effective procurement mechanisms, balancing the advantages of discretionary procedures with the disadvantages of arising from politicians' opportunistic behavior. A similar logic shapes the second part, which uses changes in 1999 to an Italian program of public investment subsidies to private firms in less developed regions (Law 488/92) with a large presence of organized crime. The funding, aimed to create new jobs, was allocated for two years according to objective criteria. For the following years, local politicians were allowed to add regional priority criteria. "It will be interesting to observe whether the additional criteria improved or worsened the effects of the law," he says. "That is, whether the positive effect of politicians' knowledge of local needs or the negative effect of the temptation to favor colluded parties prevailed."

With the third project we move abroad, to the Netherlands, to study the relations between local and foreign organized crime groups, thanks to the existence of a very detailed dataset.

The fourth study, historical in nature, investigates the effects of supply and demand of criminal skills in the development of the Mafia in some cities of the United States since Prohibition in the 1920s. "Outlawing alcohol created the demand for people able to manage an illicit traffic, while the emigration to the United States of numerous members of the Sicilian Mafia, in the years in which the repressive activity of the Fascist regime was more aggressive, created supply."



ATTRACTING THE BEST TALENTS WITH EU FUNDS FOR RESEARCH PROJECTS

STARTING GRANTS



With REPCOR, The Role of Reputation and Corruption in Procurement, **Francesco Decarolis** studies the mechanisms of public procurement, collecting evidence as to how different awarding methods are susceptible to corruption, and how contractors' past reputation should be used to award new tenders.



Simone Cerreia-Vioglio aims to develop a model of where a random choice is made not due to a mistake or a change in utility, but because of a conscious decision to randomize. In another strand of his SDDM-TEA project, he intends to study ambiguity in dynamic contexts, whereas it has been studied so far in atemporal contexts.



Literature on search strategies of job seekers and recruiters in the labor market is rich in theoretical contributions but short in empirical evidence. That's the gap **Thomas Le Barbanchon** is going to fill with ESEARCH, the research project that has earned him an ERC Starting Grant, the funding reserved for scholars at an early stage of their careers.



Deindustrialization comes with a price tag. Multiple price tags, in fact. It isn't only a question of GDP and it doesn't affect only the lives of those who lose their jobs. It affects individuals, families, and communities. **Anne-Marie Jeannet** is researching the topic in her DESPO research project.



The disintegration of the Habsburg Empire has long been blamed for the economic troubles of the nation states that emerged from its ruins, but this effect has never really been examined and was not carefully distinguished from the direct outcomes of the war. This is the gap that **Tamás Vonyó** wants to fill with his SpoilsofWAR research project.

CONSOLIDATOR GRANTS



Economic inequality may have different effects on social systems with different levels of social mobility. The long-term tendencies of the latter will be explored in Social Mobility and Inequality across Italy and Europe: 1300-1800 (SMITE), by the economic historian **Guido Alfani**. The project will assess the connection between inequality on one hand and openness of the elites, economic and occupational mobility on the other hand.



Tommaso Nannicini focuses on politicians and voters. With his POLITICALMIND, Explaining Politicians' and Voters' Behavior, he is looking at the role of political parties as organizational structures, and also at how the social preferences, personality traits, and cognitive biases shape the beliefs and the choices of politicians and voters.



Nicola Gennaioli with his SalThApp, Psychology and Economic Behavior: Theory, Tests and Applications, wants to better understand investors' risk perceptions in financial markets, asset price behavior, salient policy issues, consumer attention, product design, and competition among firms by using a fundamental cognitive principle: our opinions are overly influenced by selective attention on irregular occurrences.



While aggregate level evidence suggests that financial crises generally coincide with increased support for far-right parties, we do not understand why this happens. Building on insights from political science, sociology, social psychology and behavioral economics, the LOSS project, by **Catherine De Vries**, contends that experiences of economic hardship translate into specific narratives of loss that, in turn, trigger support for conservative political agendas.

ADVANCED GRANTS



Eliana La Ferrara, with her ASNODEV: Aspirations Social Norms and Development, notes that too often poor people (both in developing and developed countries) struggle to escape their condition due to aspiration failures. The project aims to raise their aspirations through information policies and the use of the media (in the past she studied the social effects of Brazilian soap operas).



With his DisCont (Discontinuities in Household and Family Formation) project, **Francesco Billari** studies discontinuities (an event such as the Great Recession that radically transforms people's lives). The project will discover whether the effects can linger over time either for the population as a whole or for specific cohorts.



Uncertainty is pervasive in our society – just think of financial crises, natural disasters, terrorist attacks. It differs from risk, which implies that one can estimate the probability that an event will occur. **Massimo Marinacci**'s project Individual Decisions and Macroeconomic Robustness (INDIMACRO) intends to design sophisticated models for the study of uncertainty, with applications mainly in Macroeconomics and Finance.



Arne Stein Aassve, with his project IFAMID: Institutional Family Demography, aims to explain why different countries respond in different ways to common global trends. The increase in female education is a global trend, but the demographic outcomes, in terms of fertility rates, differ across countries. The hypothesis is that the interaction between local culture and institutional quality plays a part.



With his European Integration and Populism (EUROPOPULISM), **Guido Tabellini** addresses the difficulty of achieving further political integration amongst European countries. The hypothesis is that the primary obstacles to integration are national identities and other features associated with populism such as protectionism and aversion to migration and globalization.



Gianmarco Ottaviano's MIMAT research project observes that, even if traditional international trade models postulate that firms are homogeneous, the truth is that they are not all the same, and integrating this heterogeneity into the models should change the way economists and policy makers understand the patterns, the sources and the welfare effects of international trade, as well as the impact and the optimal design of trade policies.



Giacinto Della Cananea's Common Core of European Administrative Law (CoCEAL) project aims to ascertain whether, despite many differences between European systems of administrative law, there are some connecting elements, or a "common core," and, if so, whether such "connecting elements" can be formulated in legal terms, as opposed to generic idealities.

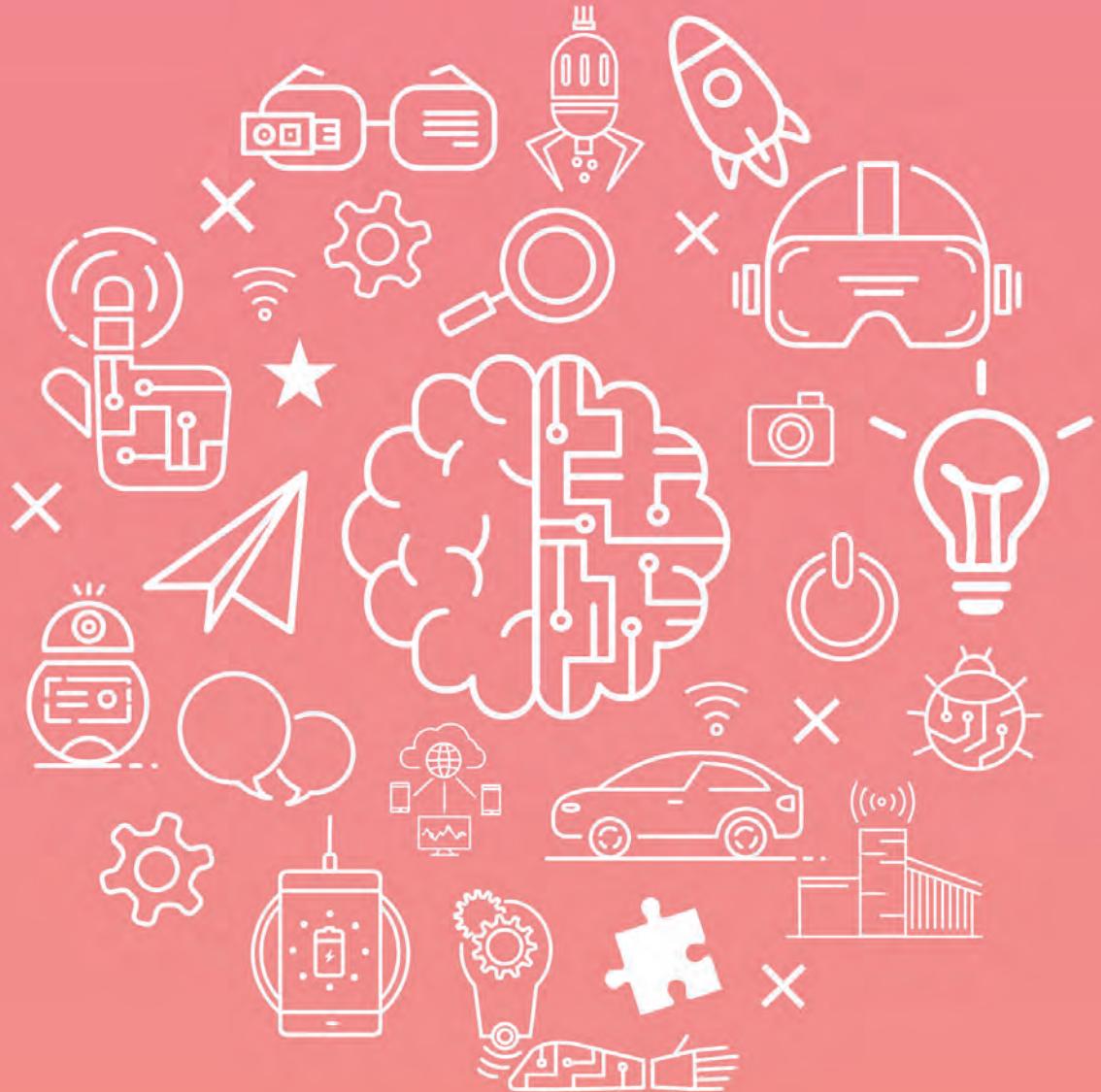


In **Massimo Morelli**'s The Political Economy of Power Relations (PoLeC) project, the latter part should read as "relations between different types of powers." At the heart of Morelli's theoretical and empirical analysis is the idea that power is multidimensional and hence political economy can benefit from the study of interactions and mismatches between the different types of power.



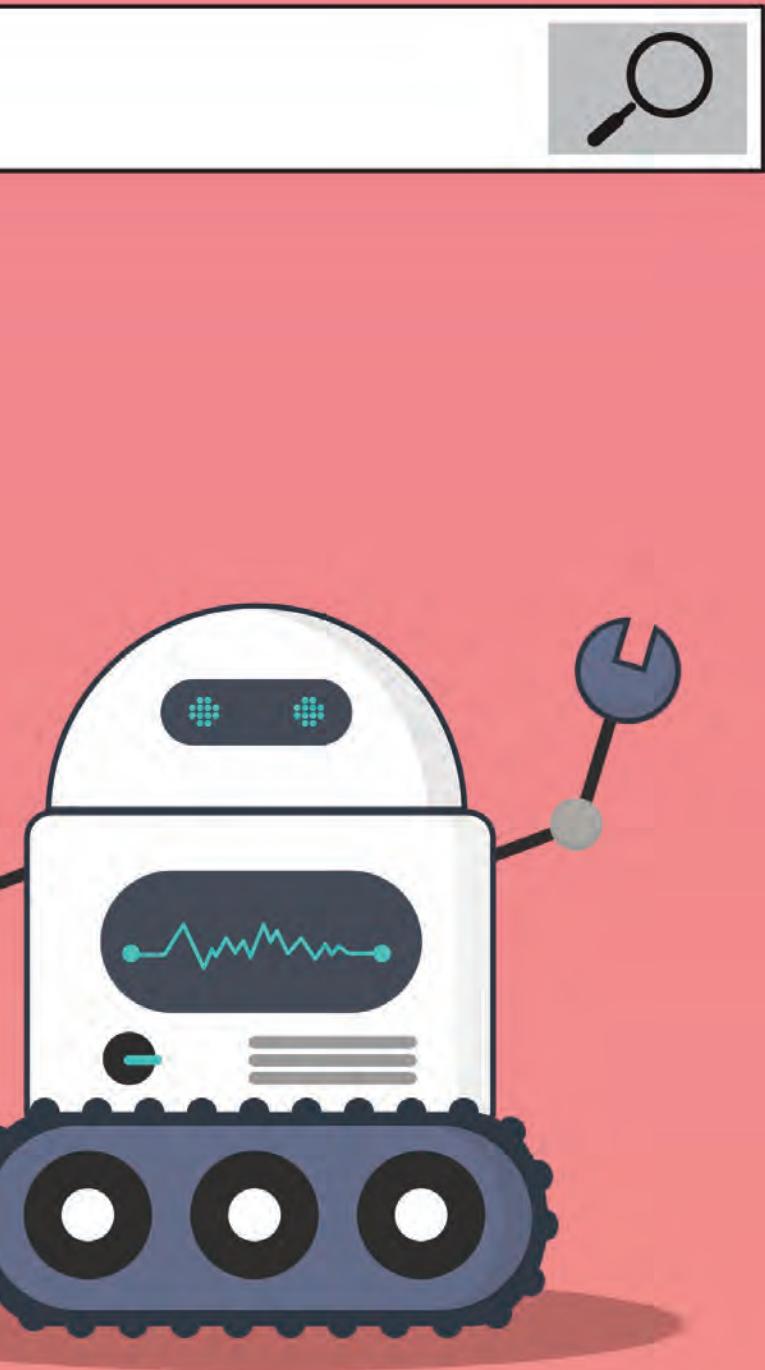
How can we discover structure in noisy data? How can we construct compact representations of large networks, while retaining most of the information about their link structure? What can and cannot be achieved by networks of agents with limited computational and communication power? **Luca Trevisan**'s SO-ReCoDi approaches these seemingly unrelated questions by developing their common mathematical foundations.

ARTIFICIAL INTELLIGENCE



Artificial Intelligence can become a useful tool to support human activity. Its further development will require different scientific sectors to work together

A multi-disciplinary approach



Riccardo Zecchina interviewed by Fabio Todesco @

For most of us, 2012 was simply the year when the world didn't end, despite the Mayan prophecy.

Some may also recall the first observation of the Higgs boson at Geneva's CERN that year, or when Felix Baumgartner, the Austrian who free-fall parachuted from 39,000 meters, became the first man to exceed the speed of sound. On the other hand, there are only a few signs of the turning point that started the revolution, at first silent and then increasingly thunderous, of Artificial Intelligence (AI). "In 2012," explains Riccardo Zecchina, a theoretical physicist and Director of Bocconi's new Bachelor of Science in Mathematical and Computing Sciences for Artificial Intelligence, "a neural network drastically improved the accuracy with which a machine can recognize an object located in a dense picture field, during ImageNet's annual Large Scale Visual Recognition Challenge."

→ *It sounds like Where's Waldo? Is it really such a remarkable achievement?*

Absolutely. To put it simply, there are two approaches in artificial intelligence. On the one hand, there is the classic one, now called Artificial General Intelligence, which dates back to the '60s and is based on logic and deductive methods. On the other hand, there is machine learning, or automatic learning, which uses methods that start from data. By 2012, the algorithmic results on ImageNet surprised everyone when in the recognition exercise the error rate had settled to 26%, compared to the average 5% of humans: Machine learning (in particular the so-called Deep Learning that makes use of artificial neural networks) or Data-Driven AI, had entered the spotlight. Using the new approach, all of a sudden (even if preparations for the neural network had been long and demanding) the error rate dropped to 16%. A totally unforeseen event. We're really talking about yesterday, but that's when the world realized the potential of artificial intelligence. Myriad applications followed and, in the meantime, the error rate in that particular exercise has fallen to 2%. Machines are now more accurate than humans in some specific visual recognition exercises, and can perform them at an incomparably faster rate.

→ *But what can machine learning do?*

Machine learning includes many different methods, used in different situations. All of them extract information from data. In the case of ImageNet, and more generally in the most recent advances, the method that is producing the most innovative and

Search is key to unleashing AI



surprising results is Deep Learning, which is based on models of neural networks that recall, in a very stylized way, the workings of the human visual system. A network of nodes capable of processing information is created, arranged in numerous layers and with numerous links between nodes and it is "trained" with an iterative learning process: if I submit the image of a cat and the system does not recognize it, I modify the conformation of the network until it does so and then I submit another image, and so on. It is a very different logic from traditional artificial intelligence, and in fact it has developed in laboratories isolated from the mainstream and involving different disciplines, because it poses issues of a multidisciplinary nature, regarding conceptualization, optimization and modeling.

→ ***It is clear to everyone how AI impacts technology, but why does the revolution also involve social sciences?***

Artificial intelligence is changing the way both natural and social sciences work, when data must be processed. In the meantime, it has made tasks possible that we would not even have dreamed of before, such as speech recognition, an acceptable machine translation, climate change modeling or programs that describe the content of an image to the blind. In other cases, such as search engines on the Internet or in the Internet of Things, artificial intelligence has drastically improved the results. In management, companies ask to use data to improve their processes. In healthcare, machine learning enables the implementation of large-scale automated diagnoses and personalized medicine. Finance also relies on quantitative methods. In general, machine learning can become an extremely useful tool for monitoring and optimizing all development processes that need to become climate-change proof.

→ ***The very concept of artificial intelligence also raises some concerns. Is there any reason for this?***

In order not to move from science to fiction, one thing must be clear: Artificial intelligence does not replace our ability to make decisions. It extracts information, it builds models, it is an extra support, like having a co-processor, but we must continue to take decisions. What we expect in the next few years is not the singularity - artificial intelligence taking power - but a series of challenging decisions that establish whether we want to modify certain social and political systems in order to be able to exploit the potential of the new tools. Increasingly accurate mass screening, for example, will only be possible if healthcare systems are willing to collect and make available large amounts

RICCARDO ZECCHINA
A theoretical physicist,
Riccardo Zecchina holds
the Vodafone Chair in
Machine Learning and
Data Science at Bocconi.
He's the Scientific Director
of Bocconi's Artificial
Intelligence Laboratory
(ArtLab) and the Director
of the new Bachelor of
Science in Mathematical
and Computing Sciences
for Artificial Intelligence,
a three-year degree in
English that will start in
September 2020

of standardized data. The real challenge is to convince the actors to cooperate.

→ ***And what about the scientific challenges?***

First of all, we must arrive at a rigorous understanding of how the most modern methods, such as machine learning, work. Applications are outpacing theoretical understanding and there is a lot of work to be done. Then, there are problems to be solved. The first is the transition from supervised to unsupervised recognition. In the case of the Large Scale Visual Recognition Challenge, recognition is supervised because the objects have been classified by humans before asking the machine for recognition, but the vast majority of data is not supervised. Self-supervised learning is reached when machines can infer a model from data, act according to the model and analyze how the environment will respond to their actions, modifying the model if these do not match expectations. The second problem is the Holy Grail of machine learning research: teaching machines to infer causal patterns from data. In general, machine learning is being used in all scientific disciplines, including social ones. Its applications are broad-spectrum and I believe that they will contribute significantly to scientific progress in the coming years. The development of AI and its applications will require unprecedented multidisciplinary collaboration in science, at 360 degrees. ■



Training the creators of the future

A new three-year English-language degree program will give the next generation the professional skills it needs to understand how and why the best AI tools work

by Fabio Todesco @

With the explosion of the amount of data available to scholars and professionals, modern artificial intelligence (which, through sophisticated algorithms, extracts complex information from large amounts of data), pervades every scientific discipline and many professional fields using tools that evolve, progress and change at high speed. Bocconi therefore intends to train a new type of graduate with a rigorous, innovative and methodological background free from the restraints of traditional academic fields. These scholars will be able to understand how and why the best artificial intelligence tools work, and create new ones. That's why it is launching the Bachelor of Science in Mathematical and Computing Sciences for Artificial Intelligence, a three-year degree in English that will start in September 2020.

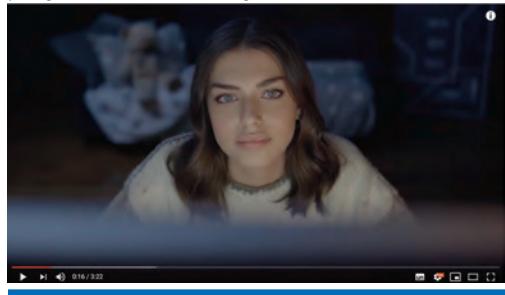
“The program meets the increasingly urgent need for new job skills coming from the professional world, and from academia and research. On the one hand, they require a mastery of the most sophisticated mathematical, computational and modeling methodologies, and on the other hand they must understand the algorithms of modern artificial intelligence,” said Bocconi Rector Gianmario Verona.

The course is structured on three pillars: mathematical tools (analysis, geometry, probability, statistics, numerical calculation); modeling (physics and economics, in their most advanced expressions, such as quantum



VIDEO

Learn more about the Bocconi BSc in Mathematical and Computing Sciences for Artificial Intelligence



physics on the one hand and game theory and behavioral modeling on the other); and computation (theoretical computer science, algorithms, programming). They are studied on parallel tracks within a unitary framework. The faculty exchange objectives and languages so that the connections are clear to students, until they converge in increasingly sophisticated simulations and data-driven artificial intelligence courses, to integrate and put the knowledge acquired into practice. The optional courses, which cover a wide range of disciplines, help students to understand which path to follow after graduation.

“Ours is not a program ‘in’ artificial intelligence, it is a program ‘for’ artificial intelligence,” explains the Program Director, Riccardo Zecchina, a theoretical physicist who has worked at Bocconi since 2017. He also directs Bocconi’s Artificial Intelligence Lab.

“It aims to provide the basics of mathematics, modeling and computational theory necessary to understand artificial intelligence and produce innovation.”

Graduates will be positioned to continue their studies, in Italy or abroad, with advanced programs in artificial intelligence, applied mathematics, computer science, data science, physics, economics, finance and management. Or they can exploit their depth and flexibility in the job market, as methodological experts in the mathematical, computational, modeling and artificial intelligence fields.

“We have created something highly challenging and completely different from any other program,” concludes Prof. Zecchina. “To the students who want to really stand out, we are undoubtedly asking them to climb a mountain, because it is a demanding program. But it is a mountain that, once climbed, confers great intellectual strength.” ■





COVER STORY

SIMONE CERREIA-VIOGLIO

Associate Professor in the Department of Decision Sciences. His research interests are Economic Theory, Finance, and Applied Mathematics. In 2015, he was awarded a European Research Council (ERC) starting grant



EMANUELE BORGONOVO

Professor of Operations Research at the Department of Decision Sciences and Director of the Management Science Laboratory of SDA Bocconi Business School. He's Director of the Bachelor program in Economics, Management and Computer Science (BEMAC)

CARLO BALDASSI

Assistant Professor of Computer Science. His research interests focus on the application of Statistical Mechanics to machine learning and computational neuroscience



DANIELE DURANTE

Assistant Professor of Statistics and Research Affiliate at the Bocconi Institute for Data Science (BIDSA). His research is at the intersection of Bayesian methodology, modern applications, and statistical machine learning



NICOLAS BRUNEL

Professor of Neurobiology and Physics at Duke University, Affiliate in the Center for Cognitive Neuroscience, Faculty Network. Member of Duke Institute for Brain Sciences



PIERPAOLO BATTIGALLI

Professor of Microeconomics and Game Theory, and current Head of the Department of Decision Sciences. He is a Fellow of the Econometric Society and a founding member of the Game Theory Society

CHRISTOPH FEINAUER

Assistant Professor of Computer Science. He works in machine learning and high performance computing applications, e.g. on biological problems, medical research, and natural language processing



ANTONIO LIJOI

Professor of Statistics. He is Fellow of the Institute of Mathematics Statistics and of the International Society of Bayesian Analysis. He is also Fellow of the Bocconi Institute of Data Science and Analytics (BIDSA)



Quantitative disciplines meet at Bocconi's Artificial Intelligence Lab

A drawing by physicist Tullio Regge welcomes visitors to the home page of Bocconi's Artificial Intelligence Lab (ArtLab) website. Since the 1980's, Regge has been bringing together mathematics, computer science and art by adding textures to the curves obtained by solving advanced equations. Similarly, the ArtLab directed by Riccardo Zecchina, a student of Regge's, wants to be a meeting point and a cross-fertilization vehicle for different disciplines - although all in the quantitative field - such as computer science, applied mathematics, statistical physics, computational statistics and optimization to develop rigorous methods and algorithms for artificial intelligence.

"Our research unit does mainly basic research of a multidisciplinary nature," explains Prof. Zecchina. "In recent years, STEM disciplines have made an increasing contribution to the economic field, and we deal with frontier issues such as automatic learning. It is not entirely clear how these tools will influence economic theory, but it is clear that they will! Applications are now present in all scientific disciplines where data plays a key role." The learning algorithms that ArtLab is developing can be applied, for example, to the identification of important features in massive data. "In addition to methodological studies, we are experimenting with them in the biological field," explains Prof. Zecchina, "because data on protein sequences is particularly clean and allows rigorous validation of our methods."

ArtLab, which is hosted by the Bocconi Institute for Data Science and Analytics, counts on the participation of about fifteen academics, almost all of them from Bocconi (the exception is Nicolas Brunel, a computational neuroscientist from Duke University) and some ten doctoral and post-doc students dedicated to theoretical research. "But in the coming months we plan to develop a third circle of researchers dedicated to the most innovative applications," says Zecchina.

Ezio Renda

CARLO LUCIBELLO

Assistant Professor of Computer Science. His research focus is on the theoretical investigation of problems in signal processing, discrete optimization and machine learning, along with the design of related algorithms



FABIO MACCHERONI

Professor of Decision Sciences. He works on Decision Theory, Game Theory, and Mathematical Finance. More recently, he started working on topics in Computational Neuroeconomics and Discrete Choice Analysis



MASSIMO MARINACCI

AXA-Bocconi Chair in Risk. His research areas are economic theory and applied mathematics



SONIA PETRONE

Professor of Statistics. Her research areas include Bayesian Statistics - foundations, methods, applications, Bayesian nonparametrics, mixtures and latent variable models, methods and models for prediction, state space models



IGOR PRUENSTER

Professor of Statistics and Director of the Bocconi Institute of Data Science & Analytics (BIDSA)



SIMONE PADOAN

Assistant Professor of Statistics. His research interests focus on Applied Probability Statistical Theory and Computational Statistics. His main research area is the Extreme-Value Theory



LUCA TREVISAN

Professor of Computer Sciences at Bocconi University and a senior scientist at the Simons Institute for the Theory of Computing



GIACOMO ZANELLA

Assistant Professor of Statistics and Machine Learning. His research interests include Statistics, Data Science and Applied Probability, with a particular focus on Bayesian Computation



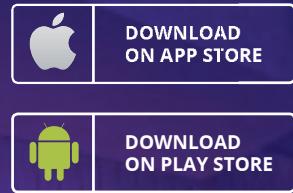
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DEVELOPMENT

Dowry, the transfer of parental assets at the moment of a daughter's marriage, descends from an ancient tradition dating back to at least 200 BC. Although dowry has virtually disappeared with modernization in most of the world, it persists in contemporary India and is becoming increasingly common in Bangladesh, Pakistan, and Sri Lanka. While the original dowry payments acted as a pre-mortem bequest to daughters that afforded them post-marital financial protection, property rights over dowry are now usually appropriated by the groom and his family rather than being retained by the bride. Dowry acts as a considerable levy on the young women's original families: a range of 4 to 8 times the household's annual income, according to estimates. Thus, households often start saving for dowry as soon as a girl is born.

Previous research has argued that dowry costs contribute to the phenomenon of Indian parents' preference for male over female offspring, but there is as yet no systematic evidence of this effect and its import. Due to dowry having been prohibited in India since 1961, official time-series data on dowry are not available, and this makes it hard to analyze its importance. Even if we had data on actual dowry transactions, it could be hard to isolate the influence of changes in the cost of dowry from the effect of family preferences or attributes.

In a joint study, Sonia Bhalotra (University of Essex), Abhishek Chakravarty (Manchester University) and I have looked at the variation in the financial burden of dowry as dictated by variation in world gold prices.

Gold, typically under the form of jewellery, is an integral part of Indian dowries, and since India imports more than 90% of its gold from the rest of the world, fluctuations in international market prices translate into variations in the cost of dowry.

We combined monthly data on international gold prices for 1972–2005 with monthly data on birth cohorts, which include indicators on the survival after birth of male and female infants. Using this large data set with more than 100,000 observations, we found that in months of gold price inflation, the likelihood that a baby girl survived through the neonatal period (i.e., was alive a month after birth) was significantly lower. Importantly, they were statistically significantly different from the likelihood of survival of baby boys. In fact, gold price inflation appears to



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improve the survival chances of male babies. We also found that girls born in months of rising gold prices had lower chances to make it through to adulthood. This is correlated with parents deliberately depriving girls nutritionally, as it is well known from prior research that nutritional deprivation in early childhood results in lower height in adulthood. We broke down the results for children born after 1985, since ultrasound technology became widely available across India after the mid-1980s and previous research has shown that parents made the shift from neglecting baby girls after birth, to aborting unwanted girls before birth. For these cohorts, we found that increases in the price of gold during pregnancy are correlated with a decline in the probability that a girl rather than a boy was born. Thus, by one means or the other, parents seem to react to gold price increases by acting to reduce the chances of survival of their female progeny. We conducted various tests on the stability of these results, and our interpretation is that they are a function of dowry costs.

Overall, our research constitutes the first evidence that the financial burden of dowry contributes to a reduction in the share of females in the population stemming from foeticide or neonatal neglect. ■



THE PAPER

The Price of Gold: Dowry and Death in India.
Sonia Bhalotra, Abhishek Chakravarty and Selim Gulesci studied the effect of gold prices on female birth rates in India.



Her future? It depends on the price of gold

In India, a daughter's dowry can cost 4-8 times a household's annual income, even though the practice is prohibited by law. Our research shows parents react to increases in gold prices by reducing the survival chances of their female offspring

by Selim Gulesci @



FINANCIAL COMMUNICATION

Not even a super star can be



rude to financial analysts

Elon Musk and Tesla have become case studies on how to avoid errors in financial communication, which is more than "just" numbers and now includes social media

by Xiaoxi Wu @

When we talk about firms disclosing financial information, what usually pops up in people's minds? Most likely numbers - how big corporations give accounting numbers about their profits, cash flows, cost controls and other financial topics to help investors make investment decisions. In fact, it is more than just numbers. Financial communication is a multidimensional concept: the sentiment of firms' narrative disclosures, executives' voice pitch in earnings calls and facial expressions in TV interviews – those subtle details are important elements of financial communication and can contain information about a firm's current situation and future outlook.

Tesla's Elon Musk is a gold mine for financial communication case studies. As the founder and CEO of Tesla and SpaceX, he is an inventor, an engineer with vision, as well as a celebrity bad boy who dated the Canadian singer Grimes. However, when it comes to financial communication skills as a CEO, he learned it the hard way. Let's rewind to 2018 and look at Musk's three 'astonishing' moments (or as the media calls it: bizarre Muskian performance). Tesla's 2018 first-quarter earnings call on May 2, 2018 has been rated as "arguably the most unusual" earnings call by Morgan Stanley's star analyst Adam Jonas because of how Musk treated analysts' questions during the call. The CEO rejected a question about Tesla's capital requirements by saying: "Excuse me. Next. Boring bonehead questions are not cool." He also rejected a question about Model 3 because "these questions are so dry. They're killing me." While it's typical for CEOs to be reluctant to provide sensitive or negative information, the stock market was shocked by Musk's impolite and unprofessional attitude towards analysts. Tesla's share price plummeted 7% that day, and almost 6% the day after. To repair the relationship with analysts and investors, Musk had to apologize to the analysts in public during Tesla's 2018 second-quarter earnings call.

Shortly afterwards, on August 7, Musk tweeted: "Am considering taking Tesla private at \$420. Funding Secured." Those nine words caused panic among shareholders and employees. Some were questioning



XIAOXI WU
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the truthfulness and accuracy of the information, whereas some suffered great losses in the stock market because of the tweet - short sellers lost an estimated \$1.3 billion. Later, it turned out no final decision regarding privatization was actually made. Musk just tweeted, carelessly. Both Musk himself and Tesla were punished by the regulator, including forcing Musk out as chairman, \$20 million fines to both Musk and the firm, and barring Musk from tweeting without approval from Tesla's in-house counsel.

Social media is an inseparable part of financial communication and is being closely monitored by regulators to protect investors' interests. While not an official component of corporate disclosure, executives' personal social media accounts are definitely on investors' and regulators' radar. In Musk's case, we see how it can potentially cause damages for shareholders and the firm. Nonetheless, if used properly, top managers' social media communication can be beneficial. For example, researchers at University of Illinois at Urbana-Champaign and University of Washington show that CEOs can use a personal twitter account to foster shareholders' trust.

Back to Musk. In September 2018, Musk took a puff of cannabis on a podcast. Tesla's share price immediately plunged 9%. This is a classic example of how share price is moved not only by financial information, but also top managers' public image. A CEO's behavior, both professionally and personally, is a mirror that reflects the firm's financial conditions, corporate culture and internal control. Accounting and corporate finance researchers refer to this as 'the tone at the top.' Investors hold public company CEOs to a high level of professionalism. When a CEO's behavior appears inconsistent with expectations, the CEO's capability to manage the firm effectively might be questioned. Share price can suffer. In this information era, managers' behavior can be observed by shareholders instantaneously and is monitored under the microscope.

Every little detail might be interpreted as a signal and potentially cause tornado effects in the financial market. ■



The challenge of trying to measure welfare



From GDP to BILS to the new Human Life Indicator, there are different ways to quantify our wellbeing at home, at work and in our country. But in going beyond the economic dimension we must not obscure the effects of public policies

by Francesco Daveri @

Stories by Claudio Todesco

After a decade spent mired in crisis, Italy understands welfare under the traditional rubrics of income, work, and poverty very well. And this should come as no surprise. On the eve of the recession that hit in the second half of 2018, per capita gross domestic product after inflation – the most commonly used measure to assess a country's average well-being – was at the same level as it was in 1999, and 9% below the 2007 peak.

The job market is patchy: a recent report by national statistics agency ISTAT indicates that, thanks to the 2014-2018 recovery, there are now about 23.3 million people who are employed in Italy, 58% of the working-age population. But the unemployment rate – the share of people actively seeking employment but who cannot find it – remains stubbornly above 10%: four points above early-2008 levels. And



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available employment is not “very intensive” and also driven by temporary work.

Italy's low employment intensity can be measured by looking at total hours worked, which is 5% lower than the 2008 high. This shows that the 23 million people who have jobs work less intensively than before. Meanwhile, job insecurity driven by globalization (more than from legislation) has risen and therefore has increased the number of involuntary part-timers – people who work part-time because they cannot find a full-time job – to 1.5 million people.

Last, but certainly not least, households in absolute poverty, i.e. which cannot afford a standard of living above a minimum threshold depending on geographical area and socio-economic status (€1,300 for a family of two parents and one kid in the North, and €1,000 for the same kind of family in the South),



had reached 1.8 million, or 6.9% of total households. Considering these families represent five million people, 9% of the Italian population is poor.

Faced with such stark data, the public debate about social welfare should not only focus on the growth of incomes and GDP, but go beyond to consider various aspects of societal well-being.

To achieve this goal, a special committee was set up by the 2016 budget law to study the problem in depth. It includes senior officials of the Ministry of Economy, ISTAT, and Bank of Italy, as well as two experts with proven scientific reputation.

It is tasked with proposing a set of indicators measuring "fair and sustainable welfare" (Benessere Equo e Sostenibile – BES, in Italian) to be included in official budget documents presented to Parliament.

Thus since 2018, the DEF - the economic and financial document that forms the basis to draft the annual government budget in Italy - includes an additional section aimed at formulating objectives and monitoring results in terms of fair and sustainable welfare.

Due to this small accounting revolution, from now on Italian governments will have to assess expected policy results not only in terms of public accounts and traditional macroeconomic variables (GDP, consumption, investment, export, inflation, and unemployment), but also according to a new set of 12 social indicators.

These include disposable income after government assistance (therefore net of taxes, but including the value of services provided by public institutions and NGOs), the share of people languishing in absolute poverty, and the ratio between the share of total income going to the richest 20% and the share of income received by the poorest 20% of the population (the latter clearly being an indicator of inequality).

But the focus also extends to more social variables such as life expectancy at birth, the proportion of overweight or obese adults, and the share of NEETs (young adults who have stopped studying too early, but are not working since they don't have professional qualifications).

Finally, there are indicators on personal security, access to civil justice, CO2 emissions, air pollution, and illegal construction (whose introduction is a novelty).

It was about time, some would say.

Provided that the large number of indicators to be considered does not end up producing the undesired effect of giving a confused picture of what is going on in the economy, thus obscuring - rather than clarifying - the perception of the country's ability to generate well-being along the dimensions traditionally measured by economics. ■

NICOLETTA BALBO

Measuring happiness in stepfamilies

Literature on extended families is a fast spreading strand of sociological studies of the family. Questions traditionally posed in looking at families are now applied to a new context: does a newborn child contribute to the family's happiness? What is the division of household labor? Research has focused so far on measuring the well-being of children in stepfamilies, i.e. children from a previous union living in a new household where partners have a common offspring.

Nicoletta Balbo (Bocconi) and **Katya Ivanova** (University of Amsterdam) took a different path and studied the relationship between having a common child in stepfamilies and partners' relationship satisfaction. The authors of "Cementing the Stepfamily? Biological and Stepparents' Relationship Satisfaction after the Birth of a Common Child in Stepfamilies" based their analysis on the Panel Analysis of Intimate Relationships and Family Dynamics, a survey of the German population which was launched in 2008. A sample of randomly selected persons of three birth cohorts (1991-93, 1981-83, and 1971-73) filled out a survey on a yearly basis.

"According to data from 512 families, having a common child is linked to higher satisfaction over time," Professor Balbo says. The researchers also looked at the differences between the two partners.

"For those whose common child is between one and three years old,

that is, when the caring load is heavier, there is

a temporarily lower relationship

satisfaction for the biological parent of all

children in the union." The explanation

lies in the unequal division of household

labor. The biological parent of all

children is very often female, and she

handles most of the homemaking tasks and

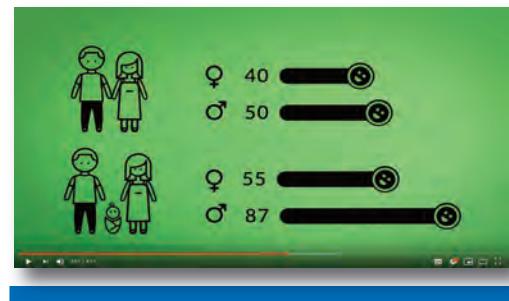
family responsibilities.

NICOLETTA BALBO
Assistant Professor
Department
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VIDEO

Happy fathers, fatigued mothers. How a child affects your life by Nicoletta Balbo.



SIMONE GHISLANDI Human Life Indicator turns development ranking upside down

Since its introduction in 1990, the UN's Human Development Index (HDI) has contributed to shifting our understanding of development away from a purely economic view, toward a more diverse one, combining data on health, schooling and economics. HDI, though, has its flaws, according to a new study co-authored by **Simone Ghislandi**, an Associate Professor at Bocconi University's Department of Social and Political Sciences, and it could be more usefully replaced with a new and simpler Human Life Indicator (HLI).

The new index takes into account only the inequality-adjusted life expectancy at birth: at life expectancy parity, i.e., a country with many disadvantaged people dying young and many rich people dying old is considered worse-off than a country with all the population living about the same age. Even if the two indexes are highly correlated (0.93), HLI also measures the progress toward reducing inequality in human development.

"Replacing a set of indicators with a single one makes sense because the components of the HDI are correlated and picking one doesn't imply a major loss of information," Prof. Ghislandi says.



SIMONE GHISLANDI
Associate Professor
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Furthermore, life expectancy is the right choice because it's the most reliable among the HDI's components. Lastly, the HDI implicitly assumes that life has a different value in different countries. "As the same HDI score can be reached with different combinations of life expectancy and GDP per capita, tinkering with data you can observe different economic values for one year of life in different countries," Prof. Ghislandi continues.

The new indicator produces an earthquake in the development ranking. Compared to the HDI revision in 2018, in the HLI in certain rich but unequal countries drops (the US drops from 13th to 32nd, Australia from 3rd to 10th, and Germany from 5th to 25th); the more equal ones gain (Japan jumps from 19th to 2nd, Spain from 26th to 5th, and Italy from 28th to 6th).



THE PAPER

A Simple Measure of Human Development: The Human Life Indicator, by Simone Ghislandi, Warren C. Sanderson, Sergei Scherbov.

LETIZIA MENCARINI

Using tweets to study parent feelings

Letizia Mencarini is examining the relationship between subjective well-being and fertility across time and geography in a five-year project funded by the European Research Council and hosted by the Carlo F. Dondena Centre for Research on Social Dynamics at Bocconi University.

"Unfortunately, there is a lack of longitudinal data in Italy," she says. The collection of soft measures such as information on attitudes and feelings posted on social media can be an interesting starting point. For this reason, Professor Mencarini has analyzed millions of tweets with the collaboration of computer scientists, linguists and demographers of the universities of Turin, Florence and Valencia. They used hashtags and keywords to filter 260 million Italian tweets posted in 2014. They ended up with nearly 4 million tweets about parenthood. A random sample of 6,000 tweets was submitted to an annotation process on the CrowdFlower platform in order to detect sentiments and sub-topics. This subset of tweets was used to feed a supervised machine-learning experiment that has extracted soft measures on parenthood and fertility. The whole process is best described in "Happy Parents' Tweets. An Exploration of Italian Twitter Data with Sentiment Analysis," forthcoming on Demographic Research.

"According to our data, parents express a generally positive attitude about being and becoming parents and negative about politics," Letizia Mencarini says. "They have quite negative sentiments also about their children's future and parental behavior." There is a significant correlation between the prevalence of positive sentiments about parenthood and macro-regional indicators for fertility and life satisfaction at levels, an interesting subject for further exploration. "Our dataset is non-representative of the Italian population as a whole," Professor Mencarini says, warning against any form of generalization. "The sentiment analysis can nonetheless spark further research using more traditional techniques."



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THE PAPER

Happy Parents' Tweets: An Exploration of Italian Twitter Data Using Sentiment Analysis by Mencarini, Hernandez Farias, Lai, Patti, Sulis, Vignoli.



GABRIELLA BAGNATO Well-being is the foundation for positive leadership

When the air pressure falls on an airplane, adults should put on their own oxygen masks before helping their children. Something similar should happen at work. Leaders are constantly in the spotlight. They are evaluated on results for which they are not the only ones responsible. They are forced to multitask and are consequently subjected to a very high risk of over-stress. Just like on a plane, they should take care of their own well-being before caring about their employees.

The consequences can be serious: if they do not look after their own well-being, leaders reduce their chance of generating collaborative relationships, performing analyses, and making sustainable decisions (beneficial in the medium to long term). Well-being is at the core of the concept of positive leadership. In today's organizations, this leadership style is more effective than the traditional leadership driven by the command-and-control logic.

Gabriella Bagnato, Laura Baruffaldi and Vincenzo Perrone, professors at SDA Bocconi Business School, are investigating the dynamics of positive leadership to strengthen the empirical evidence on its validity and disprove some of the misconceptions surrounding it. They are

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currently collecting data from two different surveys conducted a few months apart on pairs of managers and employees.

"The leader that generates well-being and therefore economic value is one that promotes collaboration, builds trust and mutual respect, recognizes the value and the potential in his or her subordinates," Professor Bagnato says. The leader generates well-being when he or she is able to recognize skills and to help in acquiring new ones. This is crucial in a world where single companies are no longer able to develop career paths for their employees.

Communication skills also matter: leaders should be able to make sense of the additional efforts that are increasingly required today. "Positive leadership can generate positive deviance," she says. "It happens when employees exceed expectations by generating value that goes beyond mere execution, producing ideas, innovation, collaboration and a positive organizational climate."



MARCO SARTIRANA How hospitals can identify and manage staff care

Enhancing employee well-being in public health organizations could improve the latter's functioning and economic performance. The results of the CERGAS SDA Bocconi research in the book by **Carlo De Pietro, Guglielmo Pacileo, Agnese Pirazzoli** and **Marco Sartirana** "Le inidoneità e le limitazioni lavorative del personale SSN. Dimensioni del fenomeno e proposte" (Egea) show how important this issue is. Almost 12% of the employees of the Italian National Health Service have total or partial limitations at work, peaking at 20% in some professional categories and especially in the most advanced age groups.

"There is a wide range of physical and mental impairments. They go from the inability to lift patients to the 'burn-out' that occurs in stressful situations," says Professor Sartirana, research fellow at CERGAS. These constraints have repercussions on workers' health, organizational functioning, public spending, and health care quality. Public health organizations should identify and manage them before they get out of control. They could implement an information system to monitor the phenomenon, identify critical areas and discuss prevention strategies; make investments in technology, such as patient lifts, that can help workers in the most difficult tasks; create help desks; build teams that integrate all professionals involved (occupational doctors, prevention managers, directorates, etc.). "The problem is closely linked to the aging of NHS staff," he says. "Organizations must therefore learn how to implement age management through new HR management processes and flexible working

hours for senior employees. They should reshape activities such as reducing night shifts, relocate aging employees in positions with a lighter workload, give value to experience and skills." The research project has now entered its second stage. It aims to identify health care policies that Italian regions can implement to support local health centers and authorities.



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MASIMMO MAGNI Going offline after work helps manager performance

They call it, euphemistically, Organizational Citizenship Behavior. OCB is a person's voluntary commitment at work that is not part of his or her contractual tasks: unpaid overtime hours, replying to email outside work hours, voluntary help to colleagues, etc. "This should be a discretionary effort, but such behavior is so common today that organizations expect it," says **Masimmo Magni**, Professor of Organization and Human Resources Management. He has studied the effects of OCB with Ekaterina Netchaeva (Bocconi) and Remus Ilies (National University of Singapore).

"OCB has a positive impact on organizational performance, but it can also have a negative outcome on individual well-being, in particular on work-life balance," he says. In the summer of 2018, the researchers observed the behavior of 70 managers and their partners for 10 working days through surveys and fitness bracelets that track sleep and lifestyle. The study showed that, over time, OCB causes mental fatigue which in turn causes physical symptoms (malaise, headache, nausea) and has repercussions on the family unit, with potential long-term work relapses. These negative effects are mitigated by the improvement of sleep quality and the partner's support in coping with fatigue.

Based on the same study, an article on the effects of the use of mobile devices for work purposes outside office hours was presented at the end of May at the congress of the European Association of Work and Organizational Psychology.

This habit, an aspect of OCB, compromises sleep quality, causes a decrease in concentration at work and an increase of stress at home, thus triggering a negative work-family interaction. "The best way to break out of this vicious circle is to detach from all interruptions connected to work after office hours and regenerate emotional and cognitive energies through a positive relationship with family members," he says.



THE BOOK

The topic of hospital workers and well-being is examined in "Le inidoneità e le limitazioni lavorative del personale SSN" by Carlo De Pietro, Guglielmo Pacileo, Marco Sartirana, Agnese Pirazzoli (Egea, 2017, 162 pages, €22). The book, in Italian, is the result of a CERGAS study along with several sector leaders.





When management means

Alessandro Profumo, CEO of Leonardo and Bocconi alumnus, has had one constant in his career: delivering change. His take on management? Make sure you listen, and never think you know everything

by Jennifer Clark @

Alessandro Profumo, CEO of Leonardo, graduated “late” from Bocconi at age 30 with a degree and 10 years of work experience under his belt. He was quick out of the gate, and by 38 was Director General of Credito Italiano. In fifteen years he created one of Europe’s largest banks. And now he is shaking up Leonardo.

→ **When you joined Banco Lariano in 1977 at age 20, did you aim to become a manager?**

Sincerely, what I wanted was a salary to support myself and my family. On my first day at the bank, they sat me down in front of a huge pile of promissory notes. I had never seen one before in my life! I started as a teller. But it was an excellent bank and a great place to learn.

→ **Why did you leave the bank for McKinsey?**

To learn something new. After a year, a group of people I admired – Giovanni Cagnoli and others – decided to leave McKinsey and create Bain Cuneo. And I left too. And after three years I realized that being a consultant wasn’t my passion, and I wanted to be a manager.

→ **How did you start at Credito Italiano?**

I was very lucky because a person I had met as a client called me saying “I will be named CEO of RAS, do you want to come work with me?” Then in 1994 Credito Italiano was looking for someone with my profile. I joined as a manager in December 1994, when I was 37. And in July 1995 I was named Director General. I was 38 years old, and the adventure started.

→ **Did Credito Italiano call you to implement a consolidation strategy?**

They wanted someone who could manage an important change path at the bank. I had an amazing board of directors. The chairman, Lucio Rondelli, was fantastic. He represented the legacy of the bank, but he was open to change. For example, we were the first bank that created a centralized structure for asset management. Rondelli wasn’t too convinced about it. He said, “Alessandro, think about it for a week.” And I came back and told him, “I thought about it, I analyzed it, and I think it is the right change to make.” He never stopped me. It was a dual effort.

→ **How did you adapt your managerial skills when you moved to an industrial group?**

Sometimes when a person comes from a different background it can be an advantage. Clearly I need to have highly technically competent people around me, and I must

*ALESSANDRO PROFUMO
Profumo, 62, enrolled in Bocconi at age 20 with the goal of becoming a professor. Instead, he became a father, and graduated at 30.*

“Getting my degree in Business Economics while working and raising a child was no picnic, and I am not sure I would suggest it. I finished with honors.” Professor Roberto Ruazi helped him finish his thesis on medium- and long-term lending institutions at office visits at 7:30am. “He would give me back my pages, corrected, with his suggestions.”

How did Bocconi help your managerial career? “Apart from what I learned...it’s a very highly diverse environment, which is a huge advantage.” Advice for today’s Bocconi students? “Maximize your curiosity! Take advantage of the opportunities it gives you.

Don’t ever get too comfortable! Anyone who goes to Bocconi should see themselves as lucky.”

be able to choose the right people and to respect them. This is fundamental. It wasn’t that different when I was in banking. When I chose Sergio Ermotti (currently UBS CEO, ed.) for Corporate Investment Banking at UniCredit in 2005, he knew a thousand times more than I did about that area. It wasn’t like I was omniscient in banking. The issue is to have a clear idea of how to structure a decision-making process.

→ **What are the most important qualities a manager needs to have?**

You need ability based on training, of course. And to be able to listen. You need to be able to make a decision based on an information set that is as complete as possible, but may not always be. If we wait to have 100% of all the information, we may never decide. The fundamental role of a manager is to decide. The capacity to listen enriches the decision-making quality.

→ **How do you stay informed on technology?**

I have a Chief Technology Officer, and others who work on strategy. I try to listen to clients very closely. Above all, you must never think you know everything.

→ **You wrote a book in 2003 on corporate responsibility. Why is it important for business?**

Each company’s main goal is to generate value, for shareholders and for stakeholders. I am convinced that if you don’t generate value for stakeholders, you aren’t generating it for shareholders either. And to generate value for stakeholders you need sustainability. Therefore, to think about people, about technology. Suppliers, the communities where we work. It’s pretty clear. If I have people who are not happy about working for me, how can I generate value? There always has to be a positive exchange.

→ **What are you most proud of in your career?**

To have created something new. Like UniCredit. And at Leonardo, the company is growing and we are creating new jobs. We are transforming the group’s industrial structure. It’s interesting because people could say, “a banker is overhauling an industrial process.” But that’s what is happening. The other thing I am pretty proud of is that although I believe I made several errors in my life, I am sure I made them in good faith. I am absolutely certain all of my choices have been based on ethics. I stress, though, I have made some mistakes. ■

implementing change



Climate change will form a generation shattered by environmental disasters. But a greater challenge may be how they deal with a growing divide between haves and have-nots exacerbated by global warming



by Soheil Shayegh @

The challenges faced by cli

What should we call the generation that will be born after 2020? Generations are often marked by their preceding socioeconomic events: baby boomers, generations X, Y (or millennials), and Z have been affected by drastic changes in our social, economic, and technological systems. World War II, rapid economic growth, and widespread use of internet and social media have shaped trends in fertility and human development in the last few decades. However, the next generation will be marked by something rather different. Unprecedented changes in the environment and the loss of biodiversity on planet Earth have been attributed to climate change and will be the driving forces behind fertility decisions in the decades to come. First, climate change causes a rise in average temperatures and will therefore change the way plants and food crops grow in arable areas across the globe. Some cold regions like Canada, Russia, and northern Europe will benefit from rising temperatures, while



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most developing countries around the Equator will face increasing pressure on their agricultural yield. At the same time, other economic sectors may adopt various adaptive measures to counter the negative impacts of climate change. As a result, climate change will hurt some regions and sectors while it will help other regions and sectors with new opportunities. Second, different climate impacts will translate into wage differences between low-skilled and high-skilled labor. While most people working in the agricultural sector are low-skilled, climate-induced reduction in agricultural productivity in developing countries increases food prices and, consequently, the wages of this group of labor force. This can be seen as an incentive for parents in these countries to have more low-skilled children. While the opposite holds for developed countries, where an increase in agricultural productivity as a result of climate change can reduce food prices and wages of low-skilled labor working in this sector. Parents in



mate change babies

these countries, in contrast to their counterparts in the South, will be inclined to have fewer low-skilled children. Finally, the last piece of the climate-fertility puzzle lies in the fact that acquiring skills is costly. Therefore, facing a limited budget, parents can choose either to have more low-skilled children or fewer high-skilled ones. This phenomenon is sometimes called quantity-quality tradeoff and can be traced back to our daily decisions about how we spend our money on different goods and services. Parents in developing countries are therefore more inclined to take advantage of rising wages in the

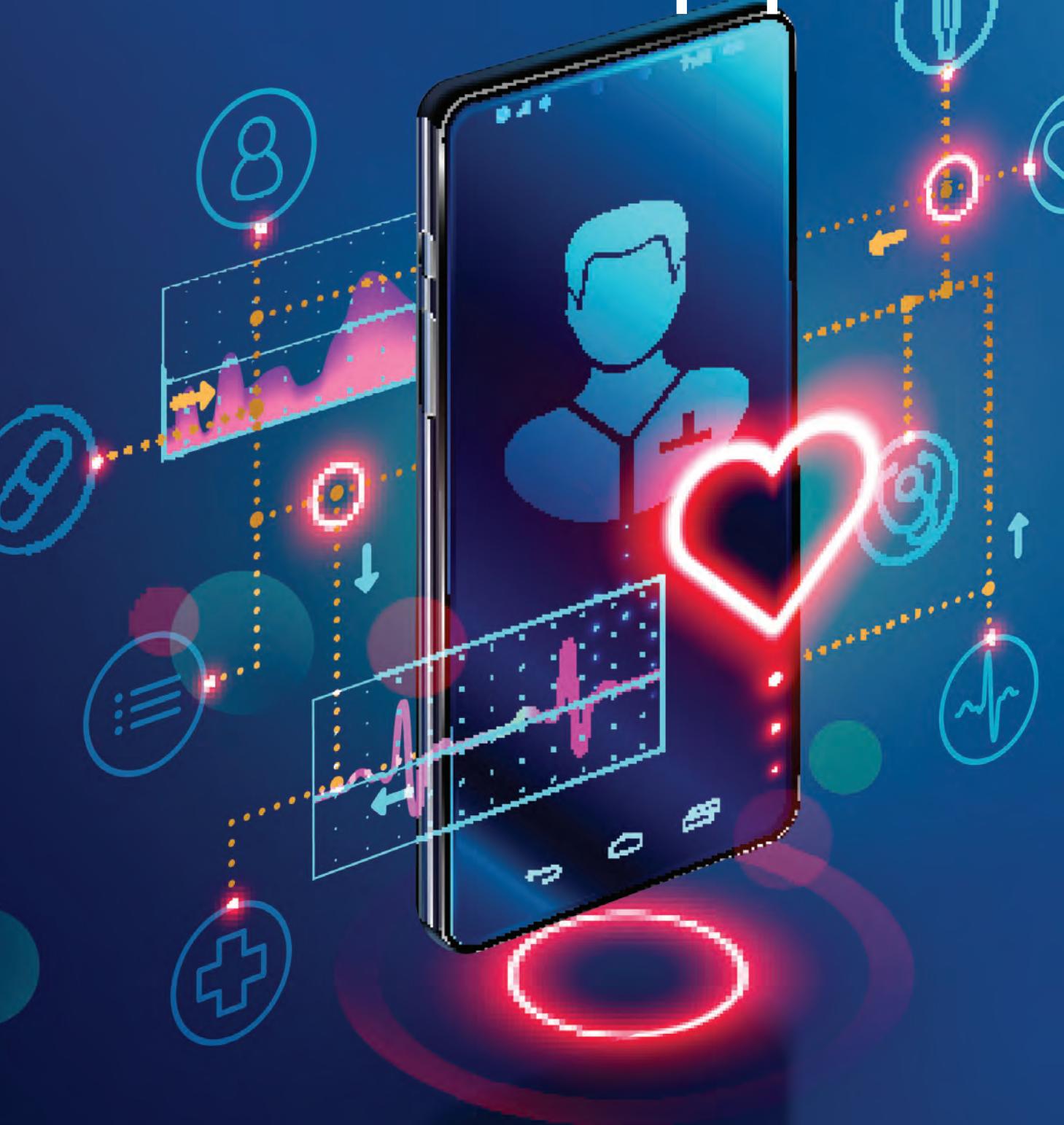
agricultural sector and have more children with lower education while parents in developed countries, in contrast, will have fewer children but will provide them with higher education. As a result, “climate babies” will form a generation deeply divided and inherently unequal in terms of skills and human development pathways: large number of low-skilled people in the South against relatively smaller number of high-skilled people in the North. Climate babies will be born in a world shattered by environmental disasters and unprecedented biodiversity losses. But a greater challenge for them might be how they will deal with growing divide between developed countries in the North and developing countries in the South. These challenges are indeed centuries old. However, our generation’s epic failure in addressing the problem of climate change has worsened them to a scale that will require all the ingenuity and sacrifices that the generation of climate babies will be able to muster. ■



THE PAPER

The Impact of Climate Change on Fertility by Gregory Casey, Soheil Shayegh, Juan Moreno-Cruz, Martin Bunzl, Oded Galor and Ken Caldeira.

Health is more popular with



h doctors than with patients

Medical apps are slow to take off, despite potential benefits. Patients ignore them because they are not designed with end users in mind. Doctors like them for paperwork

by Rosanna Tarricone @

We are all connected online. More than 4.5 billion people in the world use a mobile phone and by 2025 everyone will. In 2017, there were 325,000 health apps available online, up 30% from 2016. Heartbeats and blood pressure, step count, weight control, calories consumed, consumption of medical drugs, adverse events, psychological moods, and health parameters measured by apps are an infinitesimal part of the data collected every day around the world that can be used to improve our health, redesign the process of providing health services while increasing efficiency and reducing inequality. Mobile health (mHealth) means providing health services and programs through the use of mobile devices and is an extraordinary technological innovation in the health sector. Quality clinical evidence and the huge amount of data collected make a huge contribution to the development of new health technologies, improvement of treatment protocols, increase in therapeutic adherence, effective management of chronic diseases, and patient empowerment. A random clinical trial of patients with metastatic tumors showed adding an app for monitoring chemotherapy effects to standard treatment increases survival by 5 months on average. The ubiquity of connectivity greatly reduces the need for the patient to go to the doctor, with savings in health expenditure that can be reallocated towards maximizing productivity. Access to health services in remote, disadvantaged and/or deprived areas becomes easier with mobile technology. Think of the benefits that would be gained by providing mobile health in Sub-Saharan Africa, where access to basic health provision is limited, life expectancy is among the lowest in the world, but the number of smartphones connected to the Internet has quadrupled over the last decade, so that now 10% of the world population online lives in Africa.



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However, the great hopes for mHealth sometimes remain only hopes, especially for those medical apps that help with monitoring, controlling, and, if necessary, altering health treatments. Most users stop using these apps after a few weeks. What is going wrong?

A survey conducted by Bocconi University on over 1,000 patients and 1,000 doctors in five European countries and in the US investigated the factors that favor or hinder the use of mHealth. The analysis found an important digital divide between doctors and patients: almost 77% of doctors use mHealth while only 28% of patients do and, considering doctors, only a third use apps for monitoring their patients. Administrative uses prevail and they rarely directly involve the patient. This is because apps are not co-developed with end users, with the result that most of them are considered to be of low quality, and doctors do not recommend them to patients.

Most apps are neither supported by empirical evidence nor subject to any evaluation process. Efficient regulation of apps is necessary to increase their quality and effectiveness and thus confidence in their use. In 2017, in the field of management of chronic diseases, 860 clinical studies were conducted compared to 126,000 apps launched in the same year. 99.3% of medical apps have gone to market on the basis of no clinical evidence.

mHealth is a disruptive technological innovation that will modify the processes of production and delivery of health services, and exponentially increase the effectiveness of health programs while requiring few additional economic resources. It will contribute to forming a generation of "expert patients," and will replace, at least in part, long and expensive clinical trials with a vastly greater amount of evidence available in a vastly shorter amount of time. But technological innovations in healthcare must be governed by appropriate assessment processes and development models consistent with the needs and expectations of patients, which do not necessarily coincide with the population that uses fitness apps. Also, incentives and other nudges can viably encourage their use and dissemination, helping to achieve huge savings that mHealth can bring. ■



THE PAPER

Mobile Health Divide Between Clinicians and Patients... by
Rosanna Tarricone, Maria Cucciniello, Patrizio Armeni, Francesco Petracca, Kevin C. Desouza, Leslie K. Hall, Dorothy Keefe.



The challenges of open banking

The EU PSD2 data-sharing directive creates new challenges for banks, from strategy to governance: here's how they need to change to avoid becoming a commodity

by Anna Omarini @

Starting on September 14, PSD2 (Payment Services Directive 2) requires European banks to share certain customer data. These rules, issued in January 2018, were created to guarantee better protection for online customers, promote innovation on the internet and mobile payments through online banking, as well as to improve cross-border payments within the EU.

What impact will it have? Some traditional areas of banking may no longer remain the exclusive prerogative of banks. As is already the case, the sector will be open to new players who are developing increasingly user-friendly solutions, which today mainly concern the last mile of a transaction.

All this will redesign more than just the European payment market and landscape. It will also introduce a break with the past, favoring the development of a new way of doing so-called open banking, which will be accessible, easy and initially based on the centrality of the user experience for individuals and businesses. This will lead to a competitive landscape characterized by new rules of the game. The main drivers will be openness and value, which must be interpreted beyond mere PSD2 regulatory compliance.

In an initial phase, we expect open banking will mainly attract banks that will target the requirement in order to progressively seize



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business opportunities and deal with any threats that may result from it. These threats, in particular, result from the possible marginalization of banks when managing certain monetary and financial activities for their customers. It is therefore essential that every bank be aware of these challenges. Governance, in particular, will be an important tool to lead banks into the future, as well as to be aware of the trajectories of market change. Today, it is not clear how all possible scenarios and roles in the new market environments will play out. Technology will certainly enable banks to change their strategy and organization, because it improves standardization, security and





enables the introduction of more effective mechanisms for exchanging and transferring information. However, it would be a mistake to consider all this as predominant, because open banking will evolve and involve all business functions where strategic vision, organization, risk management, marketing and compliance jointly drive change. The real challenge will be strategic and, within this challenge, particular focus should be placed on risk management.

New competitors will therefore characterize the future of banking. Individual banks will increasingly have to consciously choose the role that they intend to play in the different short/medium- and long-term horizons in a context where production is no longer linear but circular and where the focus is on being present or not, and on how to be present in one or more integration or exchange platforms.

In fact, open banking introduces network logics, where banks are understood as part of a more wide-ranging, dynamic and interconnected ecosystem. I believe that new business models will be born, and a growing integration between operators and different business sectors will characterize new scenarios for the banking market. This hybridization of cultures, however, must not leave room to think that we will find ourselves in a completely new environment. I believe, in fact, banks will continue to play a role even in markets where cost and product models will evolve.

The mistake to be avoided is to turn banking into a commodity. The change under way must take place while respecting banking's roots, with regard to the function of financial intermediation and payment management.

Much will depend on who takes the lead, starting with the role of regulators in monitoring the evolution of the market and, where necessary, to intervene to protect the currency, thereby safeguarding savings and investors. ■



Robo-advisor, an inv

Open banking will create an evolution in data analytics, alumnus and founder of DeusTechnology. And we will

by Emanuele Elli @

PASQUALE ORLANDO
Bocconi graduate in 2000
with a degree in Business
Administration he is currently
Head of Strategic Marketing
at Deus Technology. After a
thesis in corporate finance,
he was among the pioneers
in developing new
technologies for selecting
investment funds and
Portfolio analytics. "In 2010 I
realized that the world was
moving onto mobile
platforms but there was no
service for investment advice
accessible by smartphone.
That's how we started Deus
Technology, with no front
end, with an eye to open
banking. Now we are
entering the field of
robo-advisory."

Convergence of digital media, investment in portfolio analytics, data sharing, absence of front end. Although the expression 'open banking' was not current then, its key principles were already part of Pasquale Orlando's vision when in 2010, after a degree in corporate finance at Bocconi and several experiences in strategic marketing for wealth management, he started Deus Technology.

The company today is one of Italian fintech's first movers, one of the main advocates of robo-advisors and ready to take advantage of market opportunities created when the European directive on digital payments (PSD2) took effect, heralding a new era of open banking.

→ *What are the scenarios for banks with the coming into force of PSD2?*

In the short term I believe that open banking will remain circumscribed to banks and investment funds. Today banks' investments are concentrated on organizational issues and exploiting internal resources, as well as digitization of processes for the benefit of asset managers through "robo-advisors."

Italian banks have deposits of about €1.4 trillion, but banks currently have no strategy to help small investors to access investment instruments.

If things do not change, one of PSD2's first effects could be a flight of these customers, who can aggregate their assets and move towards other financial marketplaces.

→ *What happens when fintech can access the data of banks' clients and vice versa?*

The IT infrastructures we have today allow various systems to seamlessly communicate with each other. However, the issue is cultural rather than a technical one. Banks feel violated by this legislation; exposing customer data is contrary to their DNA and at the moment they do not see it as an opportunity but as a problem.

Investor's best friend

explains Pasquale Orlando, Bocconi
learn to trust it. Even a robo-advisor

Most of them do not even see the risks involved. However, the cultural issue also affects customers. We have already witnessed something similar with ETFs (Exchange-Traded Funds), products that I always consider advisable because they are inexpensive, diversified, transparent; after they started spreading, Italian banks turned their backs on ETFs, and the sector's growth started to flag compared with traditional equity funds.

In the same way, I expect that when a client asks about open banking, especially about its security, he or she is likely to be discouraged from sharing data with third parties. Fintechs will try to counter this perception with awareness campaigning but, in the end many savers will opt not to try.

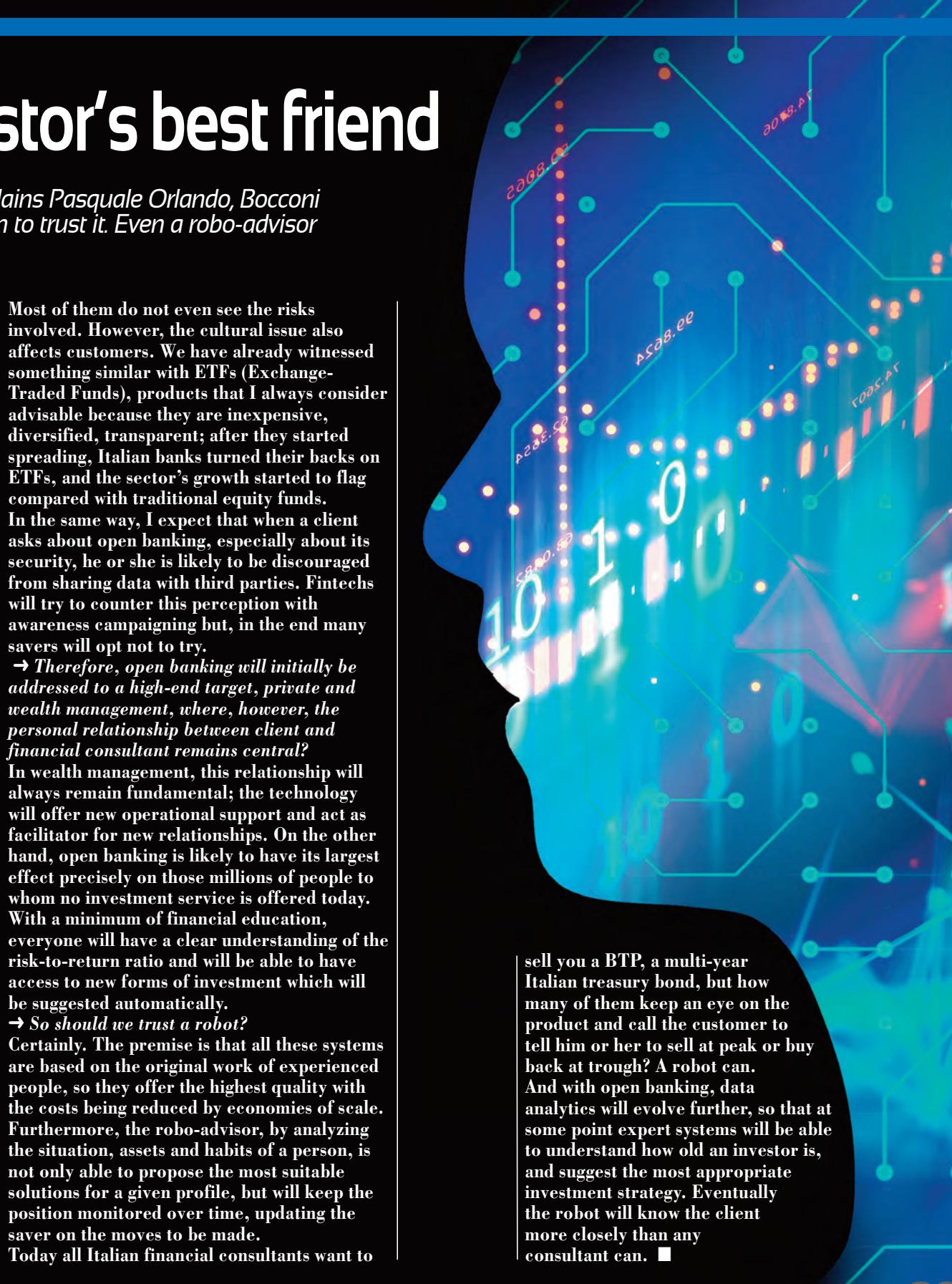
→ *Therefore, open banking will initially be addressed to a high-end target, private and wealth management, where, however, the personal relationship between client and financial consultant remains central?*

In wealth management, this relationship will always remain fundamental; the technology will offer new operational support and act as facilitator for new relationships. On the other hand, open banking is likely to have its largest effect precisely on those millions of people to whom no investment service is offered today. With a minimum of financial education, everyone will have a clear understanding of the risk-to-return ratio and will be able to have access to new forms of investment which will be suggested automatically.

→ *So should we trust a robot?*

Certainly. The premise is that all these systems are based on the original work of experienced people, so they offer the highest quality with the costs being reduced by economies of scale. Furthermore, the robo-advisor, by analyzing the situation, assets and habits of a person, is not only able to propose the most suitable solutions for a given profile, but will keep the position monitored over time, updating the saver on the moves to be made.

Today all Italian financial consultants want to



sell you a BTP, a multi-year Italian treasury bond, but how many of them keep an eye on the product and call the customer to tell him or her to sell at peak or buy back at trough? A robot can. And with open banking, data analytics will evolve further, so that at some point expert systems will be able to understand how old an investor is, and suggest the most appropriate investment strategy. Eventually the robot will know the client more closely than any consultant can. ■



Leading with a sense of

Leadership skills are changing as the world grows more complex. It's no longer enough to conduct the orchestra; leaders must now convey its purpose too. We look at what this means for tomorrow's leaders

by Massimo Magni @ Stories by Claudio Todesco

Technological evolution is radically changing employment paradigms.

The Future of Jobs report, published by the World Economic Forum (2018), highlights how artificial intelligence and automation are challenging the balance between workers and technology. According to this report, technological evolution will lead to the obsolescence of 42% of currently existing skills by 2022 to make room for the demand for skills more oriented towards critical thinking, active listening and the capacity for continuous learning.



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f purpose



Technological evolution makes it necessary to innovate and deal with increasingly complex problems by leveraging the ability to share different experiences and skills.

Take for example the case of EpiBone, a company in the field of biomedical engineering that focuses on the complex and high-impact problem of bone reconstruction.

The CEO of EpiBone, Nina Tandon, explained how the company operates at the frontier of bone reconstruction: "We take only two things from the patient: a three-dimensional scan of the bone and a sample of cells. We then use these cells to build a living bone and model it based on the findings from the three-dimensional scan. After three weeks we have a bone that can be implanted in the patient's body."

To reach this demanding level of innovation, EpiBone employs highly differentiated teams, made up of scientists, engineers, doctors and entrepreneurs who are all able to share knowledge to reach a common goal.

EpiBone is just one example, but it is now clear that when faced with the need to evolve skills, we cannot ignore the need to rethink the role of leaders and the ability to lead a team.

In situations where complex problems need to be managed that require high innovative potential, leaders must shift their center of gravity from coordinating and harmonizing relationships to actions more focused on highlighting the "why it matters" and the purpose of team activity appealing.

Leaders are no longer conductors, but rather have the ability to convey the importance of an orchestra to arouse the passion of the listeners.

I encourage you to watch the TED Talk by Benjamin Zander, Director of the Boston Philharmonic Orchestra. In 20 minutes, he demonstrates the power of change that can be inherent in classical music, without citing statistics and playing only a few notes. The question is no longer how we do it but why we do it.

The need for a shift in perspective is also corroborated



THE BOOK

A new look at femininity, an aptitude and a way of thinking, in a multidisciplinary perspective.

Essere leader al femminile by Simona Cuomo and Martina Raffaglio (SDA Bocconi, 2017, 208 pages, €22.10) demonstrates how femininity can be translated into leadership while still protecting identity.



by data from a study that was recently conducted in collaboration with Georgia State University.

It showed that the ability of leaders to provide a sense of purpose stimulates a more experimentation-oriented and less execution-oriented attitude, thus activating a drive for innovation.

Leaders who work on communicating and sharing the impact and purpose of their teams' activities help their employees energize and develop the desire to go the extra mile, to give that extra effort that makes the difference.

The story of Sammie, employed by a courier company in Florida, is a good example.

Sammie's phone rang on a Sunday morning, when she was home for the weekend, and she was asked to redirect a package to be delivered to the hospital in Tampa for Monday delivery.

The package contained material for a particularly delicate surgical operation that would take place on Monday. It would have sufficed for Sammie to redirect the package, but knowing the importance of the contents, she got in her car and set off.

After a full day driving around Florida (without getting into the details), she delivered the package directly to the nurses.

After delivery, Sammie returned home. It was late by then, and the weekend was pretty much over.

We cannot be sure, but we can imagine that Sammie came home tired, but satisfied with what she had done: she had gone above and beyond her job description for a greater purpose.

However, there is a boundary that leaders must not cross when encouraging this type of behavior, which is that of responsibility towards the people they manage. Developing a vision oriented to the purpose of their activities and stimulating the desire to go above and beyond are sources of satisfaction for the members of a team, but at the same time, they require people to invest considerable cognitive and emotional energy. Leaders must not ignore this expenditure and should be balanced in making sure these efforts do not become situations of undue stress and discomfort for the people they coordinate. ■



THE BOOK

When a leader knows how to pick a goal, assign tasks, convince people their fate is in their own hands and show them the way, he or she can reach any goal and maybe even more. This is **Sergio Marchionne. Il coraggio di cambiare** (Edited in Italian by A. Grando, Egea/Rizzoli, 2019, 120 pages, €10). Preface by Mario Monti.



TATIANA BALUSHKINA

Narcissistic leaders and their effects

From Elon Musk to Donald Trump, narcissistic leaders abound in business, entertainment, education, and politics. Even though research has discussed their behavior, the psychological mechanisms and even the distribution of narcissistic leaders throughout different generations, evidence about how they affect the individual performance of their followers is still lacking.

"We already know what happens at the organizational and group levels. Now, we are trying to investigate what happens at the individual level," says **Tatiana Balushkina**, PhD student at the Department of Management and Technology. "Narcissistic individuals emphasize their own achievements, they have good social skills, they are highly visible, and, therefore, can be perceived as role models. Our hypothesis is that, the level of leaders' narcissism has a positive effect on the individual performance of their followers. However, we propose that this effect exists only in the short term, as the worst characteristics of narcissists, such as aggression and the inability to establish long term relationships, ultimately appear and harm the followers' performance in the long run."

Balushkina tested the hypothesis in the domain of losing weight, using data from seventeen seasons of *The Biggest Loser*, an American reality TV show where contestants are tutored by a trainer and compete to lose weight. The level of the trainers' narcissism was measured by examining their Instagram profiles. "We found two results. First, contestants working with a highly narcissistic leader are more likely to lose more weight at weekly weigh-ins (short term effect), but not to win the show or to be among the finalists (long term effect). Second, narcissism has many dimensions, such as authority and exhibitionism. We conducted a robustness check in order to confirm that the effect comes from narcissism in general rather than from one of its dimensions." Tatiana Balushkina is currently working on validating the measure of narcissism and analyzing *The Biggest Loser* data from other countries like England, Australia, Russia, and Portugal in order to transform this study into a cross-country research.



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THE PAPER

Narcissistic Leaders and Individual Performance of Their Followers: Empirical Evidence from *The Biggest Loser* US by Tatiana Balushkina, dissertation chapter

EXECUTIVE CHATS, LEADERS SHARE THEIR EXPERIENCES

Digital transformation, a sense of purpose, engaging Generation Z, leadership skills in different industries: Bocconi Rector Gianmario Verona talks to today's business leaders in these video interviews to find out more about what tomorrow's will be like



MARCO BIZZARRI
Gucci President
and CEO



FRANCESCA BELLETTINI
President and CEO
of Saint Laurent



FABRIZIO CASTELLUCCI

Self-awareness helps to lead teams

We all know a leader when we see one. What is much harder is to pin down what leadership exactly means. Yet the literature on leadership has evolved immensely over the last century. In the beginning, the theory focused on identifying personality traits such as intelligence or eloquence, says **Fabrizio Castellucci**, who looked at the subject in his book "Essere leader" (Il Management, 2018).

"The adopters of this approach were not able to identify the universal and distinctive features of leadership, yet this theory is still favored by authors and publishers who claim that individual traits and characteristics can predict the success of entrepreneurs such as Steve Jobs or Elon Musk," he says.

The literature has since evolved to incorporate significant new aspects:

the forms of leader behavior, hence the theories on leadership styles; the people oriented vs. goal oriented approach; the context; the characteristics of the leader's collaborators.

Among the emerging approaches, Castellucci says, the one focusing on authenticity seems particularly promising. According to this theory, a leader with high levels of self-awareness who acts consistently with his own value system can motivate employees and gets results.

"No pre-packaged model can describe the complexity of leadership," he says. "We need to use our critical thinking skills to reject oversimplified theories that bear little resemblance to reality. Leaders' interests may differ from those of their firms. Leaders may lack the required experience and knowledge. Sometimes leaders fail and create toxic workplaces."



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JOVANNI CISERANI
Former Group President
P&G Global Fabric & Home
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PAOLO GUENZI

Role of leaders impacts sales discounts

Salespeople are not like other workers. They act more autonomously and therefore they are harder to supervise. Because they negotiate with customers, they have an immediate impact on the firm's performance. In order to maximize their highly variable compensation, they may grant discounts too easily. An additional average discount of 1% decreases a company's profit by 11%. Because of that, the influence of leadership on salespeople's price defense behavior is of critical importance.

"Yet the role of leadership in price defense is barely understood," says **Paolo Guenzi**, Associate Professor at the

Department of Marketing at Bocconi and Official Professor in the Executive MBA and in the Executive Master in Marketing at SDA Bocconi School of Management. There are many levers to push salespeople to defend firms' price levels in price negotiations with customers. Some, such as economic incentives, are expensive. Others, such as leadership action, are free. "The influence of leadership and the adoption of a transformational leadership style are important and can be amplified by the combination of three variables: salespeople's learning motivation; negotiation efficacy; and perceived customer lenience," Professor Guenzi says.

Results of a model using 264 salesperson-customer interactions in a car dealer confirm these predictions. Not only that, price defense does not induce customers to refrain from purchasing products they would have purchased otherwise. "These findings have some theoretical and managerial implications. Leaders need to be aware that their own negotiation behavior style influences their salespeople's price defense behavior," he says. "They should adopt a transformational leadership style. They should aim at influencing their salespeople's learning motivation and negotiation efficacy."



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MARIANI E GAGLIARDI

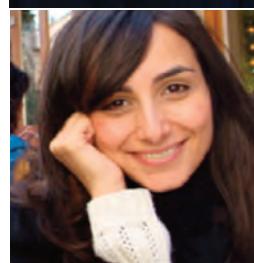
Leadership skills can also be learned

Leadership skills are not entirely based on natural talent. They can be learned. **Myriam Mariani** and **Luisa Gagliardi**, both professors at Bocconi, used an original testing method: they analyzed data on military service. "When it comes to leadership skills, there is a self-selection effect. People with a knack for it tend to enroll in programs that teach leadership. This makes very difficult to understand how much leadership depends on a natural talent and how much on training," professor Mariani says. The authors used data on military service in order to isolate the effect of training.

"Literature says that during military service people are directly exposed to examples of hierarchical leadership," she explains. "There is also an indirect effect: the draft led people to keep studying in order to postpone their service or to have access to better assignments."

The authors employed a difference-in-difference research design using the policy discontinuity in the US, which abandoned the compulsory draft in 1972, and a sample from countries that kept compulsory draft in the same timespan. Because it is compulsory, military service cancels out the effects of self-selection. Then they analyzed data from 7,000 research and development projects, for which there has been a great demand for leadership in the last 20 years.

"The end of the compulsory draft reduced the likelihood of assuming leadership roles in research and development projects by 5.7%," she says. "In other words, leadership skills can be learned. At the same time, the end of conscription realigned the gender odds of being in leadership positions and produced a transition from a more hierarchical leadership style to a less autocratic and more creative style, which is more likely to lead to inventions."



THE PAPER

The role of leadership in salespeople's price negotiation behavior by Sascha Alavi, Johannes Habel, Paolo Guenzi and Jan Wieseke

SILVIA CANDIANI
Country General
Manager Microsoft Italia
Bocconi Alumna

VITTORIO COLAO
Unilever and Verizon
board member,
Bocconi Alumnus





LEADERSHIP



LUCA DE MEO
Renault CEO
(from July 1st) and
Bocconi Alumnus

FABIO DE' LONGHI
CEO at De' Longhi,
Bocconi Alumnus

PHILIPPE DONNET
Generali Group CEO

EMILIA PAOLINO

Controlling emotions shapes team

Emotions count. They also count for leaders who have to manage tension and stress and find the energy to lead their team. They have to reduce the risk of overexertion and behave in accordance with the strategy of the organization, which may consider some emotions as inappropriate. A study conducted by SDA Bocconi on the emotional strategies adopted in the workplace by 1101 participants in the school's executive courses showed that the proper management of emotions by the leader has a positive impact on the performance of his team.

"A leader shapes the emotional climate of the working team," says

Emilia Paolino, SDA fellow. "There are positive repercussions on the behavior of team members when the leader shows appropriate emotions."

Leaders' behavior creates a learning climate that favors the development of innovative processes and the management of unexpected events. They are both essential for organizations facing the pressing challenges of the market.

The effort to control emotions, though, enables them to effectively lead the team in the short and medium term. But it may create problems in the long run. The leader must internalize emotion control.



Otherwise, it may lead to excessive stress or even to burnout. "These results can be a starting point for any organization to achieve good team and organizational performances by following the rules of emotional management," she says.

"Firms should engage in building an organizational culture that respects the well-being of its members, supports individuals' identities, improves workplace harmony."

JOHN HERLIHY
LinkedIn Vice President
EMEA and LATAM



PROFETA AND WOODHOUSE

Electoral systems impact gender mix



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According to the Inter-Parliamentary Union database, 121 countries out of 193 have less than 25% female representation. The under-representation of women on the political stage has been addressed in the literature. **Paola Profeta** and **Eleanor Woodhouse** (Department of Social and Political Sciences) did it in a novel way, focusing on the role of electoral systems.

In majority or "winner take all" systems, the personal exposure of the candidate is more relevant than in proportional systems. The majority systems require a stronger will to compete, to which women tend to be more adverse than men. It means that proportional

electoral rules favor the election of women with respect to majority ones. At the same time, the majority system enhances the quality of elected politicians. "We wondered if there is a quantity-quality trade-off associated with electoral systems and female representation." To provide an answer, the authors collected data on the range of Italian politicians from all levels of government over the period 1987-2013. The 2005 Italian reform changed the electoral system for national elections from majority to proportional. This change allowed the researchers to test the effects of electoral systems on the representation of women and the quality of politicians measured by their educational level and subnational experience.

"We found that the proportional electoral rule promoted women's representation without a reduction of the quality of politicians," Paola Profeta says. "We also found evidence of a negative selection effect under proportional rules: the elected women were not the best candidates. This was particularly the case in the Southern Italian regions that are more gender traditional. The overall quality of elected politicians could have increased if the best female candidates had been selected."

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Co-Founder and VP
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FEDERICO MARCHETTI
Founder and CEO of YOOX
NET-A-PORTER GROUP
Bocconi Alumnus





THE PAPER

Gender and the Politics of Death: Female Representation, Political and Developmental Context, and Population Health in a Cross-National Panel by Macmillan, Shofia and Sigele



NAILA SHOFIA
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NAILA SHOFIA

Women MPs can have social impact

Women in parliament can save scores of women's and children's lives, especially in lesser developed and weak democratic countries, finds a paper published by *Demography* and authored by Bocconi University, University of Limerick and LSE scholars. In these countries, when the share of women in Parliament goes from less than 10% to more than 30% (a threshold advocated by the United Nation Equal Opportunities Commissions), child mortality is cut by half, from 60 to 30 per 1,000, and maternal mortality is reduced by 80% from 250 to 50 per 100,000.

Given that women prioritize maternal and child well-being, expectation is that more women in parliament translates into a lower maternal and child mortality.

"According to our results," says **Naila Shofia**, a doctoral candidate at Bocconi University and co-author of the study, "gender quotas make sense especially where it's less expected. Common sense would suggest that, in developed and democratic countries, established channels facilitate the transmission of women-backed policies. However, in developed countries welfare systems protecting women and children are already in place, with free press and NGOs acting as watchdogs should these systems falter. As a result, female MPs, in this context, can make only a marginal difference. In developing countries, on the contrary, they can contribute to establishing such welfare systems by raising the issue in

parliament should the press and NGOs fail to voice the need." The percentage of women in parliaments across the world increased from 6.2% in 1975 to 20.4% in 2015, quotas are in place in countries such as Rwanda, and 42 countries have already reached the 30% threshold recommended by the UN. In order to understand whether descriptive representation (a fair share of women in parliament) translates into substantive representation (a better representation of women's interests), the scholars analyze parliamentary representation and maternal and child mortality rates in 155 countries spanning from 1990 to 2014.

Women's political representation turns out to be associated with significant decreases in mortality for women and children, with the strongest effects in contexts of low extent of democracy and low economic and social development, when women hold at least 30% of the parliamentary seats. "The threshold is important," Naila Shofia says, "because a low share of female MPs risks not only being ineffective but also to being abused, by using female MPs as a token of legitimization for the policies chosen by the vast majority of male MPs."

BILL McDERMOTT
SAP CEO

MARCO ALVERÀ
CEO of Snam

PAOLO MERLONI
Ariston Thermo
Executive Chairman,
Bocconi Alumnus

GIOVANNI STRAMPELLI

Improving effectiveness of directors

Independent directors are responsible for monitoring management opportunism and protecting shareholders' interests, yet their role is still widely debated. "We need to ask ourselves how to make their role effective in majority shareholder-controlled companies," says **Giovanni Strampelli**, associate professor of Business Law.

To take financial and family ties between directors and controlling shareholders into account is not enough. A director may have an incentive to overlook his own duty because of non-material relationships.

Professor Strampelli therefore proposes that the United States should also adopt the Italian legal regime where minority shareholders can elect a certain number of independent directors. In Italy, minority shareholders are usually institutional investors acting under the guidance of Assogestioni, the Italian Investment Management Association that plays a central role in selecting candidates using the services of headhunters and observing enhanced independence requirements.

"We must take the human element into account, too," he says. "Over time, directors inevitably create social links which can weaken their independence. So, they must be subjected to stricter term limits. They are often professionals who do not have specific skills compared to those of the executive directors. In order to enhance their authority, they must receive full information from the executive directors and be given the power to monitor transactions that are influenced by controlling shareholders."

Finally, public disclosure of advice provided may strengthen the link between a director's individual vote and his/her reputation, and thus further promote his/her independence.



GIOVANNI STRAMPELLI
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THE PAPER

How to Enhance Directors' Independence at Controlled Companies by Giovanni Strampelli

LUCA MIGNINI
Campbell Soup Company
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ANDREA ZAPPIA
Chief Executive
Continental Europe
at Sky

CRISTINA SCOCCHIA
Kiko CEO,
Bocconi Alumna





People change jobs more frequently in today's workplace. What is the impact of a departure on the future careers of colleagues who remain? Disruption, but also more opportunities to gain knowledge and create new relationships

by Tracy Anderson @

An employee's decision to leave a company not only affects that employee's own career, but may also have a meaningful impact on the future of others who remain at the company.

In the past, having a successful career often involved working your way up through a hierarchy of jobs within a single company. Today, however, careers typically span organizations. Individuals now entering the labor market expect to move between employers over the course of their careers, like many of those before them.

Employees move between organizations for many reasons. Some move for personal reasons that are not work-related. Others are seeking career opportunities and rewards that are not available – or, at least not easily accessible –



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employee mobility may increase the opportunity for promotion among those on the same organizational career ladder who stay.

The creation of traditional job vacancies may be less common and less relevant than it once was, as organizations become less hierarchical and work becomes more project-based. This is not to say that the careers of employees who remain are now less affected by others leaving, however – in fact, there is reason to believe that the repercussions of employee mobility may be felt more widely today.

Employee mobility disrupts the social network within an organization. Colleagues who previously relied upon those who have now left for help, expertise, advice, and support in the workplace may suffer. They may struggle to maintain their level of job performance, which

Job changes also impact those who stay behind

within their current organization. A new job with a new employer may offer fresh challenges and opportunities for learning and development. At least to start, however, those who make such moves may struggle to perform at their previous levels. They lack both the knowledge of their current setting and the established relationships with colleagues that can aid performance. Yet in spite of this, moving between employers can be a route to securing greater pay.

Plenty of research has considered and provided evidence of these consequences for the individuals who move, but what about those who are left behind? What are the implications of mobility for the careers of the employees who remain in the organization after others have moved on? Early work on this topic highlighted how such movement can create vacant job positions and reduce the numbers competing for future job opportunities. Where this is the case,

may hinder their progression. They may feel less supported and therefore less committed to the organization, potentially prompting thoughts about leaving themselves.

The increasingly collaborative nature of the workplace means that these disruptive consequences of employee mobility may be felt across the organization – not just by those on the same career ladder. Many employers are trying to break down organizational barriers and encouraging their workforce to develop collaborative relationships that span departmental, functional, and geographic divisions. This is done in the hopes of enhancing knowledge sharing, creativity, and innovation but, as a result, the effects of employee mobility are no longer confined inside these divisions. It is not all bad news though. While employee mobility has negative consequences for those who stay, there are positive consequences too. The disruption of the social network can have an upside. It can prompt those left behind to seek out and forge new relationships with others in the organization. This can stimulate learning and knowledge recombination that may not have otherwise taken place. And that can be beneficial both for the employees who are left and for their employer. ■



THE PAPER

My colleague just left! How the mobility of co-workers affects job performance by Tracy Anderson and Martine Haas

Who will pr

A man in a dark suit and white shirt is standing on a grey floor, looking up at a large, stylized red downward-sloping arrow painted on a brick wall. The arrow is thick and has a white outline. The background is a grey brick wall with a light blue grid overlay. The man is positioned to the left of the arrow, looking towards the right.

Answer: it may be a machine. Tests show that today's online machine learning could have predicted the 2008 financial crisis. Could computers be effective in the future, given that the causes cannot be known? The challenge awaits

by Carlo Favero - Stories by Claudio Todesco @

Predict the next financial crisis?

During a visit to the London School of Economics at the peak of the 2008 financial crisis, when researchers from one of the most prestigious schools in the world explained to her how terrible the situation was, the Queen of England asked directly, "Why did nobody notice it?"

Several months after this question was asked, the Economics section of the British Academy wrote a three-page letter addressed to Her Majesty, admitting that the failure to predict such a serious crisis was attributable to "the failure of the collective imagination of many bright people."

This summarizes the fact that predictive models, based on theory and applied to data by estimating a small number of parameters, are simplified versions of economic reality. Models are validated by guaranteeing that they are able to explain past

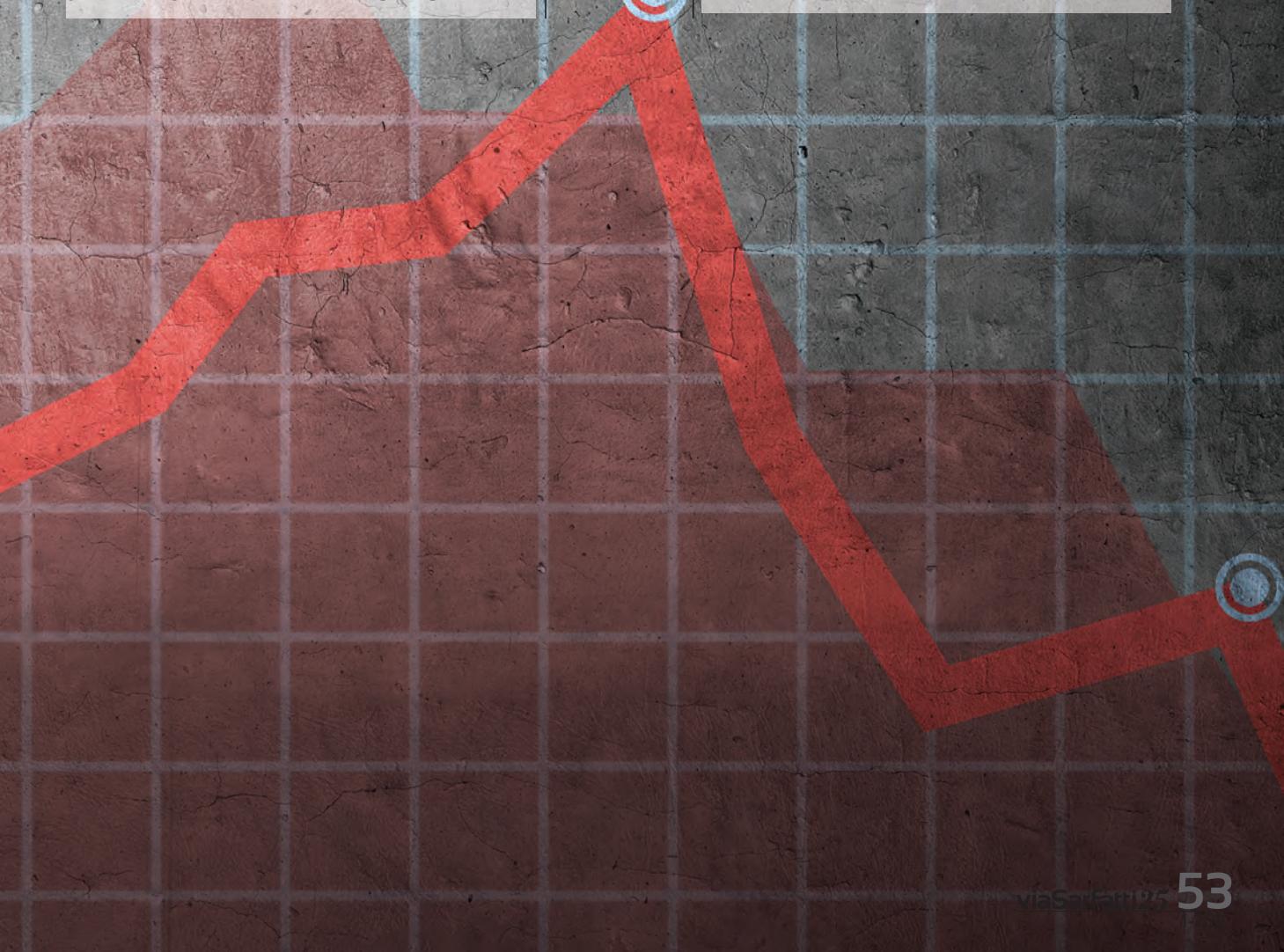


CARLO FAVERO
Deutsche Bank
Chair
*Qualitative Finance
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fluctuations in the economy. By their nature, they get into trouble when they omit aspects of reality that are not significant in the historical period used to calculate the model, but which acquire relevancy during a period different from the past, such as the crisis.

The lack of collective imagination refers to models that did not include aspects that later proved to be very important, such as the real estate mortgage market and their securitization prior to the subprime crisis, or the weight of public debt securities in banks' financial statements in the case of the European debt crisis.

Furthermore, each forecaster typically uses a unique model that reflects his or her theoretical positions and strategies for identifying relevant parameters to describe the dynamics of the economy.





FORECASTING

A computer has no imagination, but can use data to optimally combine a large number of predictions based on different models, with weights that vary over time. Combining a large number of forecasts minimizes the probability of omitting important aspects of reality from the information set used for forecasting.

An online machine learning system allows you to optimally combine forecasts. Given a sequence of periods in which forecasts based on different models are available at any moment in time, the forecaster receives the information, combines it to make a forecast, and takes a loss that is a function of the forecasting error. The algorithm chooses the weight to be given to each forecast at "time T" on the basis of the difference between the actual loss and the minimum possible loss using the information set available in all observable periods before "time T" (minimal regret principle).

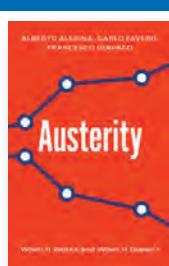
In this way, optimal forecasts can be built starting with a large number of crisis indicators (which can be macroeconomic, credit, interest rate, real estate market or financial market indicators) and various models that use these indicators differently. The result is the selection of optimal weights attributed to the different models in different periods over time. Combined models that give optimal forecasts in periods of calm are very different from models that give optimal forecasts in periods of crisis. It appears that the use of online machine learning would have predicted the crisis, with a low probability of producing a false alarm.

It would therefore seem that computational capability can make up for a lack of collective imagination. Only seemingly, though, because the tests carried out showed an ability to predict crises that have already occurred. The crucial test of the new approach will be its ability to predict future crises, since data about them does not yet exist. ■



THE BOOK

Austerity can be effective if governments do not compensate fiscal expansion during a crisis with corrections during growth, explain **Alberto Alesina, Carlo Favero and Francesco Giavazzi** in *Austerity. When It Works and When It Doesn't* (Italian edition by Rizzoli) by analyzing hundreds of austerity programs starting from the 1970s.



FRANCESCO PERRINI
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FRANCESCO PERRINI Multidisciplinary method works best

"A crisis is an extraordinary event. It can not be tackled using ordinary tools. Corporate, financial and legal expertise must all be integrated. It is also fundamental to react quickly: the new Italian law on business crisis and insolvency provides for warning mechanisms aimed at promptly resolving the crisis."



Francesco Perrini, Full Professor of Corporate Distress and Turnaround Management, is researching the many dimensions of business restructuring. "The literature on corporate crises yielded non-univocal results on the effectiveness of business restructuring," he says. In order to assess the best strategies to be applied to tackle a business crisis, Professor Perrini has analyzed the histories of some 700 listed manufacturing companies in Italy, France, Germany, United States and England from 2002 to 2010.

The research is ongoing, but he can provide some preliminary results. "First, the larger and more indebted the company, the greater the likelihood of

surviving the crisis. This is the effect of steps taken by the stakeholders involved who want the company to survive. Secondly, the legislative context influences crisis duration. In the US, restructuring lasts on average just over a year, in Italy more than three years. Lastly, restructuring is four times more likely to be successful when the CEO is quickly replaced."

There are also some managerial implications. "A multidisciplinary approach that takes into account all the categories of restructuring – managerial, operational, portfolio, and financial – should be adopted," he says. "This approach is present in 88% of all successful restructurings."



THE PAPER

Persistent Government Debt and Aggregate Risk Distribution by Mariano Massimiliano Croce, Thien Tung Nguyen, and Steve Raymond

MARIANO MAX CROCE

Be cautious with pro-growth policies

There are two sides of the public debate on austerity after the 2008 crisis. One argues that pro-growth fiscal interventions should be adopted at the expense of the debt-to-output ratio reduction. The second one highlights the importance of debt stabilization, as established by the European Stability and Growth Pact. The debate does not take into account the long-term prospects of the economy, says **Mariano Massimiliano Croce**, Full Professor of Finance whose research focuses on general equilibrium models in which there is uncertainty about the long horizon perspectives of the economy.

"Fiscal interventions that are supposed to be pro-growth may come at the cost of dimmer long-term growth," he says. "Increasing the debt-to-output ratio to deal with transitory crises creates uncertainty about how the government will pay the debt and thus about the future fiscal burden. This uncertainty discourages investments in innovation that contribute to long-term growth."

Mariano Croce and his co-authors have empirically tested this model using data from fifteen developed countries, including Italy. They have found that, when the government is slow in adjusting debt-to-GDP ratio,

production and consumption worsen, while long-run uncertainty and long-run downside risk increase.

"There is a trade-off between short-run stabilization and long-term growth," he says. "We must therefore be cautious in using fiscal interventions that are supposed to be pro-growth. A rapid reduction of the debt-to-GDP ratio, on the other hand, can enhance the values of innovation and aggregate wealth."



MARIANO MAX CROCE
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DANIELE DURANTE The Moon landing algorithm that can predict the future

A new extension of an algorithm that helped put a man on the Moon can help us to predict the advent of a crisis and other binary variables that evolve over time. The algorithm is called the Kalman Filter. In 1969, the on-board computer that guided the Moon landing had one. It evaluated information coming from the module and filtered measurement errors and random components in order to estimate the actual position and to predict the future position.

Fifty years later, two academics (**Daniele Durante** and **Sonia Petrone**) and two PhD students (**Augusto Fasano** and **Giovanni Rebaudo**) in the Department of Decision Sciences at Bocconi University have developed a method that efficiently extends the Kalman Filter to non-continuous binary variables that indicate the occurrence or not of an event over time.

"Until now, any application of the Kalman Filter to binary variables was only approximate," Daniele Durante says. "Now, we can predict whether the stock market will open up or down based on the occurrence of certain conditions in the past, or who will win the next



boat race between Cambridge and Oxford based on past competitions." The method makes use of online updating: knowledge about the occurrence of a given event is updated sequentially with each new observation. The broad range of applications goes from weather events to cyber attacks.

"Our formula applies to 0/1 variables. We intend to extend it to non-continuous variables with more than two values, for instance the occurrence of a strong, medium or weak crisis," he says.



THE PAPER

Spunti sulla legge delega per la riforma organica delle procedure concorsuali: profili processuali by Marcello Gaboardi, Rivista delle società, Year LXIII Vol. 1, 2018

MARCELLO GABOARDI New law aims to improve insolvency prevention

MARCELLO GABOARDI

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Assistant Professor

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Goodbye, "bankruptcy." In 2019, the term was replaced in the Italian law by "judicial liquidation." This is just one of the innovations introduced by the new law on business crisis and insolvency. There are also a number of substantial new norms aimed at making insolvency prevention more effective. "Addressing the crisis before it is irreparable and ensuring business continuity increases the chances of finding win-win solutions for all actors involved," says

Marcello Gaboardi, Assistant Professor of Civil Procedure Law and Bankruptcy Law.

Qualified public creditors such as tax agencies and social security agencies have new reporting obligations. If they do not report a potential state of distress, they risk losing their status as privileged creditors. The law also establishes a crisis settlement body which, rather like in civil disputes mediation, is aimed at helping the distressed company return to solvency through agreements with creditors. Gaboardi is skeptical about its effectiveness. "Crisis settlement bodies have little impact," he notes. "They lack knowledge of the principles and the techniques of mediation. Not to mention the cases in which there are hundreds if not thousands of creditors and the settlement is difficult, to say the least."

In addition to introducing a single channel for all procedures, whether it be judicial restructuring or liquidation, the new law reflects evolution in the characteristics of debtors. When the bankruptcy law was first written, in 1942, the debtor was in most cases an individual entrepreneur. The reform strengthens the discipline of corporate bankruptcy and introduces a new set of rules for the management of the insolvency of groups of companies, giving a central role to liability actions brought by creditors of a subsidiary against its parent company.



THE PAPER

A Closed-Form Filter for Binary Time Series by Augusto Fasano, Giovanni Rebaudo, Daniele Durante, Sonia Petrone. Working paper



**EVERYONE
MATTERS**

Giovanni Mazzacani
Alumnus, 2014.

Bocconi Alumni and Bocconi University come together and join forces to expand our global reach and spread our values. Knowledge, global network, spirit of innovation, dialogue will continue to guide us. Today, more than ever, every alumnus makes a difference, every new idea is one more step towards new goals, every contribution is important for the enrichment of all. Want to be part of this? Join us at bocconialumnicommunity.it

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In the auction-based online advertising market, algorithms can be more effective tools than fines and regulatory bans to curb the power of FAANGs

by Francesco Decarolis @

Algorithms can offset online

In recent months, antitrust authorities around the world have focused their attention on technology oligopolies. However digital markets are evolving rapidly and it is not easy to know whether public intervention can redress market failures. For the so-called FAANGs (Facebook, Amazon, Apple, Netflix and Google), the sale of online ads is the main source of revenue. Google's situation is emblematic: in 2018, advertising accounted for 85% of annual turnover, amounting to \$136.22 billion.

However, this vast sum is made by aggregating millions of small or minuscule transactions: the search engine assigns part of the available space on the web page to advertising slots and determines the cost for advertisers through auctions conducted in real time (sponsored search auctions).

The value of these auctions is given both by the huge flow of online traffic (about 63,000 searches per second occur on Google), and ad targeting (by selecting specific keywords on the search engine and details of the offer such as time of the day/week and type of device where the ad is to be displayed).

New players have entered this rich market in recent years. Specialized intermediaries - the digital equivalent of marketing agencies - have emerged to support and direct advertisers.

These intermediaries can assist the advertiser in devising the content of the advertising message and in the choice of social media, but above all they perform a technical function.

With dozens of different platforms and billions of connected users, choosing how to allocate an advertising budget requires real-time decisions and fast and sophisticated digital algorithms powered by big data.



FRANCESCO DECAROLIS
Avvocato Giovanni Agnelli
Associate Professor
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This explains why the world of online advertising is moving from the hands of creatives to people who code algorithms. And it is precisely in the algorithms where one of the potentially most disruptive aspects lurks to threaten the overwhelming power of Google and other platforms: when the same intermediary simultaneously represents several advertisers in the same auction, the concentration of purchasing power offsets the bargaining power of the seller and, by coordinating bids for lower prices, it prevents the search engine from seizing the entire consumer surplus.

In a study with Goldmanis and Penta coming soon in Management Science, we treat the problem from a theoretical point of view, explaining also why the specific auction mechanism recently adopted by Facebook is less vulnerable to price coordination than the one adopted by Google.

But is this phenomenon of coordinated buyers' decisions a simple theoretical curiosity or is it something that really influences online auctions? In a new study with Rovigatti, through the analysis of almost 40 million Google auctions in the US market between 2014 and 2017, we find an increase in the market concentration of intermediaries equal to 200 points of the Herfindahl-Hirschman Index (HHI) - the indicator typically used to identify which mergers antitrust authorities should keep an eye on - which leads to an 8.04% decrease in Google's revenues, due primarily to a decline in the price of target keywords.

These results suggest a third way in the competition policy between the two polar extremes of doing nothing and actively intervening to fine and even break up the technology giants. The alternative is based on a detailed understanding of the functioning of complex markets, with the aim of monitoring and possibly blocking specific actions that actors like Google are undertaking to limit the ability of advertising intermediaries to lower prices. ■



THE PAPER

From Mad Men to Maths Men: Concentration and Buyer Power in Online Advertising by Francesco Decarolis and Gabriele Rovigatti

e ad grip of tech oligopolies



Italy's startups rarely fail, but are not very innovative. For better rewards, they need to take more risks in advanced sectors, and learn to exploit the experience that comes from failure

by Markus Venzin - Company stories by Emanuele and Francesco Elli @

Better a unicorn for a day th



Around 90% of Italian startups survive the first 5 years! On the face of it, this statistic suggests we are doing something right – but are we? Or is it actually disguising the reality that we are insufficiently innovative?

→ THE GLOBAL FIELD OF PLAY

We all know that there is a clear link between the level of innovation and the profitability of firms – in every industry. This link has become even stronger in recent times as new technologies change the way firms operate. Ubiquitous data and digital transformation are the lingua franca of the 21st century, and technology effects all processes in all firms. Yet, our great European tradition of being at the cutting edge of technology has been eclipsed by China and the US, and by their drive to develop and commercialize new technologies.

Europe is lagging behind. Across the continent, the startup playing field is also uneven, with different



MARKUS VENZIN
*Dean for Innovation
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countries racing ahead while others are limping behind. Indeed, the 2019 scale-up ranking places Italy at 11th in Europe; suggesting that the gap between Italy and the top 3 ecosystems of the UK, Germany, and France is now so wide that the trio seem to be playing in a different league to the rest of Europe. For example, the UK counts 9 times more scale-ups, raising 20 times more capital, than Italy. So before we cheer our 90% survival success rate, we should take a step back and reflect on what this means. Such a high success rate actually indicates that we are not sufficiently aggressive in pursuing new and disruptive ideas, and ‘failing fast’ then pivoting. Instead, Italian startups prefer to ‘die slowly’ pursuing incremental ideas and innovation. These invariably result in slower overall growth. This is the danger for Italy and Europe – particularly if Europe wants to have a meaningful role in global innovation and entrepreneurship. Despite being behind, Italy isn’t standing still, however. It is taking

an a startup for five years



steps to catch up - in terms of capital raised, number of hubs, incubators, and events - but more structure and energy for the ecosystem is required if we are to pick up the pace.

What we need to do is to create the conditions for entrepreneurial success - an ecosystem where ideas are nurtured in order to flourish and grow. Where individuals are encouraged to dream big and achieve those dreams. We need to create an environment where it's ok to fail as long as failing is fast, learning takes place, and we quickly move on to more promising ideas and innovations benefitting from this experience. This means creating a space for trying things out, for experts to support entrepreneurs' ideas, and where resources are provided to take the best ideas and fast-track them through launch and scaling. It means partnerships and cooperation, where different players come together and mutually benefit. Growth will only come from dreaming big. Growth will only come from bringing together different people and organizations.

→ BRINGING TOGETHER TECH & BUSINESS

Business schools have to contribute substantially to support Italian firms in their attempt to catch up and take their place on both the European and global stage. They need to do so by teaming up with tech institutions - Tech needs business and business needs Tech. A symbiotic relationship that can deliver greater value beyond the two sides.

Consider, for example, an IoT application to make a cable drum intelligent. By adding a device to the drum that is equipped with a GSM module and several sensors, customers such as utilities that want to manage their assets can now know where the drum is, how much cable is on the drum, and whether the drum has been mishandled. With the smart drum, they can now improve their logistics, warehousing, and many other processes, as well as benefitting the environment by collecting 'lost' drums.

This example - as with most IoT applications - is composed of 4 basic elements: hardware, cloud-based storage of data, artificial intelligence to transform data into information, and the business model.

The strength of business schools is to support and develop the latter two elements. To gain traction on the former two elements they need to work with other partners to leverage their expertise and complement their own. This is a very positive dynamic that can help broaden their perspectives. Collaborating with different partners - whether they are universities, businesses, financial institutions, startups or not-for-profits, as well as governments - will forge links between currently disparate players in the overall ecosystem. There are typically three phases in start-up/scale up.

→ THE PRE-ACCELERATION PHASE

The pre-acceleration phase supports founders through early ideation to creating a minimum viable product. This would typically involve building skills and knowledge in diverse topics such as design thinking, lean startup, sales, digital marketing, web design & analytics, agile project management, financial modelling, pitching, and go-to-market strategies. It is important to ensure that entrepreneurs are confident in their abilities to sell their idea to others and get their buy-in. At the end of this phase, the entrepreneur should have a prototype to support his or her storytelling.

→ THE ACCELERATION PHASE

With a prototype in hand, this phase focuses on entrepreneurs developing their product and engaging potential customers. During acceleration, the goal is to create the company, facilitate networking, build inspiration, and generate market opportunities. The entrepreneur should be further developing the prototype based on inputs received from potential customers and others in the ecosystem. They also need to think about recruiting other talent to support them in building their company and product as it is unlikely that the entrepreneur will possess all the needed skills, much less the time to do everything that is needed to successfully accelerate.

→ SCALE-UP

Scale-up relies on partnering with venture capitalists and other investor types, as well as getting support from individuals and organizations who are experts in scaling companies. Building customer segments, thinking about expanding beyond the home country, and developing their products and value propositions are the key criteria for success here. This is not easy, but if entrepreneurs can crack this phase, they will find themselves on a strong trajectory towards growth and performance. While it is true that not every company is able to successfully scale, to realize the dream of a strong European ecosystem of entrepreneurship and innovation, scale-up is vital if Europe is to become the third power on the playing field.

Bocconi, as Italy's leading business school, is best placed to orchestrate this ecosystem to create value and growth. Building it will be our contribution to ensuring that home-grown talented entrepreneurs get the opportunity to build their ideas and scale them first on the European and then the global stage. ■

AMICOMED

A medical startup that took years

Giangiacomo Rocco di Torrepadula is a startup veteran. He graduated with a degree in Economics from the University of Naples, then he earned an MBA from SDA Bocconi and landed a job at McKinsey. He has always been very much focused on companies: "I lived the experience at McKinsey as a school of entrepreneurship," he says. So, when the right business idea came, he seized the chance and, together with four other friends, launched Pharmaidea, a multi-channel selling platform that links pharmacies to pharmaceutical companies. Pharmaidea was an enormous success, but it did not quench Giangiamoco's



Giangiacomo
Rocco di Torrepadula

entrepreneurial thirst. After 13 years, left his first creation to throw himself headlong in a new startup: "The idea," says the Bocconi alumnus, "came from a meeting I had with cardiologist Domenico Cianflone of the San Raffaele Hospital in Milan, where he pointed out that over a billion

people suffer from hypertension in the world and, even though there are many medicines available in the market, 50% of patients continue to have high blood pressure." Hence Amicomed, a digital platform to manage blood pressure based on lifestyle choices. Not just an app, but a whole information system that provides a sophisticated analysis of personal data by integrating and enhancing the relationship between doctor and patient. "We devoted our first 4-5 years to product development, both from a medical and a technological point of view. Furthermore, when you launch a startup in a regulated environment, you need to be aware that you are going to interact with organizations that have reaction times that lag far behind those of a company." This is a useful reminder for those startppers who expect answers in a few months. "You need patience," Giangiacomo argues. "And you must be aware that for the first three years of a start-up there are no holidays, weekends, sleep... You have to dedicate yourself fully to the project." Because the initial idea counts, but it's dedication that makes the difference.



Mattia D'Alessandra

LOANXCHAIN

The right idea at the right time

Shortly after getting his Bocconi MSc in Finance, Mattia D'Alessandra was a young man who had worked abroad (more precisely in Chicago) and held a job with excellent prospects at Deutsche Bank. Many would have held on for dear life, but he left to build his own startup. "I just felt I had to do it," he explains now. "It is like you have to answer this call: you see the opportunity and not the hurdles." The "call" appeared in the guise of a digital platform based on blockchain technology, hence the name for his start-up: LoanXchain, the first multilateral marketplace dedicated to the secondary market for loans. It is a system connecting European credit institutions (both traditional players and digital lenders) and institutional investors (primarily private debt funds) in a direct and digital way. Finance on the one hand, therefore, and technology on the other. "The right intuition was to bet on blockchain technology, study it and contribute to improve it, to the point that when we went to the World Blockchain Convention in London we discovered that we all knew each other." A good injection of confidence, especially for a company that envisaged a lengthy development phase: "The first year was about team building, fundraising and creating the network of partners and subject-matter experts in order to improve on the business idea. The subsequent year was devoted to programming and extending the network. Now we are at the start of the commercial phase." But Mattia's ambitions go beyond LoanXchain. "Since I'm a young person, I would like to help change and revive my country. I'm not thinking of grand gestures, but simply to give my best in what I do and convince others to do the same." A goal which can be an example for many. "May I give a piece of advice?" asks Mattia, and answers his own question. "Study how to launch a startup and the steps you need to follow. And give yourself at least a two-year time horizon to understand whether the business idea makes sense or not. Then you have to fight. And if it doesn't work this time... it will the next!."

VELASCA

Made in Italy has the world at its feet

"We started out without a cent, knowing nothing about either shoes or technology, but we were persuaded by direct experience that Made-in-Italy quality products sold at affordable prices abroad were missing from the market." Enrico Casati, born in 1987 and Bocconi Class of 2011 in International Management, recalls how he and business partner Jacopo Sebastio (also a Bocconian) got the idea for Velasca, which sells handmade shoes both online and through a network of directly managed brick-and-mortar stores. "Our start-up phase has been quite long, we have grown slowly and also many mistakes.

Understanding what to focus on, analyzing market mechanisms and making the right moves is what's hard. However, now that we are officially a scale-up we can build on this experience to make the most of external capital inflows."

The latest capital infusion of €4.5 million will support the company's international expansion and the opening of new shops.

"Velasca was born in 2013 to sell only online," Enrico explains. "By 2014, however, we discovered through our first experience with a temporary store that we could get a lot of satisfaction from the physical retail channel. Today our plan is to open 20 new stores, of which 16 abroad, starting with Paris and London -- both just opened -- and New York, where we will open in January." In-person selling brings new opportunities and new challenges. "To support the channel, you need to have a lot of circulating product, move pre-emptively with suppliers, and have the capital to support the investment. For this, we analyze e-commerce data a lot."



Enrico Casati

BUZZMYVIDEOS

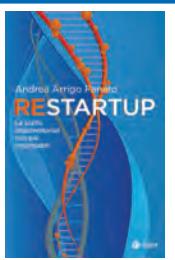
Now expanding into B2B market

For those who upload video content on YouTube, BuzzMyVideos has become a go-to tool. Paola Marinone got the idea while she worked for Google and YouTube, developed it into a start-up and then quickly evolved it into a scale-up. From its HQ in London, the company has the mission of providing technology and services to promote audience growth and monetization of online content. "There is still much room for growth," says the young entrepreneur, who holds a degree in Public Management from Bocconi with a thesis on non-profits in 2003. "Online video is an increasingly viral form of communication. In fact, at this stage we have opened a new line of business, which brings our technology directly to companies, publishers, creative agencies and marketing directors." Approaching this new market has broadened the horizons of BuzzMyVideos and projected the company into a more complex stage of evolution. "At the moment, the priority is to rapidly grow in a highly competitive market, and work on the internal organization of the company, because it is a question of combining the new B2B model with the B2C one we have been working with," says Paola. For this reason, after a phase when the contribution of venture capital was very significant, the management of BuzzMyVideos has preferred not to take on external investors. "The new business line has been developed by creating partnerships because we no longer have to scale up to create corporate value. Now it is time to optimize operations and maximize profits," the alumna explains. "It's like being in a second start-up phase. I remember that when I joined a tech company after working for four years in the non-profit sector, I noticed that the two environments had a mindset in common: namely the desire to change the world."



THE BOOK

“Restartup” (Egea 2019; 208 pagg.; 26 euro) by Andrea Arrigo Panato focuses on SMEs that are at a turning point and want to backtrack to think like a startup again. They may want to redraw their company or sector, or want to enhance their own story and tradition or that of their founding family.





Giovanni Daprà

MONEYFARM

Growing from local to international

For a long time, Moneyfarm was considered the Italian scale-up par excellence. Now it has outgrown that definition and is a fully-fledged digital asset management company.

Moneyfarm was founded in 2011 by Paolo Galvani and Giovanni Daprà. The latest rounds of financing have raised €115 million in equity capital, making it one of the best-funded digital companies in Italy and in Europe. "A great success, but also a great responsibility," says Daprà, who got his undergraduate degree in finance from Bocconi in 2005.

"The more we grow, the more attention we must pay to results and the complexity of the organization. Furthermore, the transition to an international dimension is a veritable quantum leap which forces us to be even more rigorous in management and business processes." Having set up offices in Milan, Cagliari, London and Frankfurt, Moneyfarm employs a team of over 120 professionals managing €830 million worth of assets on behalf of over 40,000 small investors.

The company has been posting double-digit growth. "There are some constants that have accompanied us in our evolution: the creation of a solid corporate culture and an excellent professional team, which is the first variable determining success," Daprà explains. "Another success factor was the choice of using a single platform for all the three countries where we are present. This choice was not only dictated by technological reasons, but also by a strategy that brings the best of each country into the other two and doesn't lead to an overtly national characterization."

MOTORK

We can now pick our own investors

"In the equity round three years ago, searching for investors was really tough. The Italian market, where MotorK was already a player, counted for little and international investors were not interested. The future B series round should be easier, because today we are on many investors' radar. We therefore have a list of people we can contact and this time it will be us doing the choosing." Marco Marlia, 40 years old with a Bocconi degree in finance, is founder and CEO of MotorK, which owns DriveK, the online car price comparison platform and digital consultancy for dealers and manufacturers wanting to make the most of the web's potential. "When we started out, the automotive industry was still very traditional: a large presence in the real-world economy but a small one in the digital economy; the threshold for market entry was therefore low, so that companies without large starting capital could enter," the executive recalls. The entrepreneurial project, the business plan and the right strategies have quickly brought MotorK to the top of the domestic market, attracting €10 million in investments and laying the foundations for expanding beyond national borders. "Today our biggest challenge is international expansion," says Marlia. "In Italy we have reached the maturity stage and now we are trying to extend and adapt our model to key foreign markets. We have opened simultaneously in several markets because the car industry works on an EMEA (Europe, the Middle East and Africa) geographic perspective; we are facilitated by the fact we are expanding into a fairly homogeneous industry, where relations between car manufacturers, dealers and consumers do not change much from country to country." The new phase requires fresh capital and MotorK is revving its engines for a new round. "It's a delicate step because we need to look for smart money," the CEO argues. "The right partners bring added value, if only because they force you to be rigorous and disciplined - to do your homework, in short."



Marco Marlia



MUSEMENT**When an exit is actually a partnership**

"When referring to startups, the word 'exit' is misleading," argues Alessandro Petazzi. He is co-founder and CEO of Musement, a platform that offers 50,000 travel experiences and attractions that can be booked in 80 countries around the world. This adventure began in 2013 when four entrepreneurs with a variety of backgrounds joined forces. After graduating from Bocconi with a degree in Business Economics, Alessandro in particular was a part of Fastweb's startup, where he gained key experience he would then apply to the Musement business adventure. "Formally, exits occur when the shares of the company are sold," he says. "But this does not mean that the company closes. The founders of Musement, for example, sold to Tui (a German multinational with €20 billion in annual sales), but we are continuing to do what we did before." The real issue, stresses Petazzi, is scale: "With our own efforts, we would have only been able to grow in small steps. The right synergy was needed to get to the next level." The synergy with Tui has provided Musement with a huge and consolidated customer base, giving Tui in exchange technology and skills that it did not have. The numbers have proved that this was a winning choice. "Before the acquisition we had 130 employees and a turnover of €35 million. A year after the agreement, there are 220 employees, with a turnover of almost €100 million." Solidity, continuity and an excellent outlook: with these results, Musement's was not so much an exit but rather the perfect marriage. This is another important



Alessandro Petazzi

consideration for anyone dreaming of launching a startup. "Enthusiasm for an idea is not enough," says Alessandro. "You also need an awareness of what you're getting into. Because once the idea grows it becomes something real, which implies responsibility towards the people involved." And there is no "exit" from true responsibility.

**EASYWELFARE****Exiting with an eye to getting back in**

Exiting a start-up can be imposed rather than sought. Just ask Federico Isenburg, who was born in Genoa in 1978 but lived in Milan from elementary school up to a degree in Business Administration at Bocconi with a specialization in finance. In fact, he would never have sold his startup Easywelfare had it not been for particular circumstances. "I was trying to replace financial partners," he says. "The company was doing well and I was convinced it still had great potential for development, but obviously I didn't make it attractive enough for investment funds." That's when Edenred (a French multinational in welfare solutions and corporate mobility) stepped in: "They showed that they really wanted to make the acquisition, they provided prospects for development, guarantees... and they won the battle." For Federico, it was undoubtedly a success, because Easywelfare, created from nothing in 2007, is the company that de facto reorganized the world of flexible benefits, which are benefits companies give employees as incentives and alternative remuneration. Turnover had risen to 11 million euros in 12 years, with over 700 corporate customers and 600,000 beneficiaries. "But in terms of entrepreneurship, for me, selling was not the ideal solution. Today I see more and more people opening a company, qualifying it as a startup and then running towards the exit, as if the only goal was enough wild growth to finalize a sale. For me, starting a company means... starting a company. When you are an entrepreneur you also have a social function: developing a business, hiring people, creating jobs..." That's why, at 40, Federico can't wait to throw himself back into the fray.



Federico Isenburg



UNICORN

YOOX NET-A-PORTER The first Italian unicorn

Federico Marchetti, Bocconi Alumnus of the Year for 2014, is Chairman and CEO of YOOX Net-A-Porter Group. *Founder of YOOX*, Marchetti now manages what is still considered to be Italy's first unicorn, or startup valued at over €1 billion. The e-commerce fashion giant is now part of Richemont.



ENTREPRENEURSHIP

Bocconi for Innovation supports startups through each phase

A platform of services and support for entrepreneurial activities, acting as pre-accelerator, accelerator and a place for the development of corporate entrepreneurship. This is Bocconi for Innovation (B4i), Bocconi University's new hub, which already has partnerships with Citi Foundation, HenkelX, the Italian Institute of Technology, Politecnico di Milano and Università degli Studi di Milano.

Bocconi for Innovation will work on several fronts: as a pre-accelerator, it will welcome business ideas to support them up to a minimum viable product (MVP). At the same time, it will provide services and support for the acceleration of companies that are already in the startup phase to lead them towards their actual business.

Startups will be selected within the three areas of the accelerator's focus: digital-tech (entrepreneurial ideas with particularly promising innovations and technologies), coordinated by Massimo Della Ragione; Made in Italy (manufacturing, fashion, food and various other ramifications), coordinated by Gabriella Lojacono; and sustainability, coordinated by Stefano Pogutz. The acceleration phase, lasting four months (with two sessions per year), will host up to 30 startups. They will be offered mentorships, assistance in forming contacts with investors, support in the various stages of development and funding of €30,000 for each startup. Lastly, corporate entrepreneurship: on this front, the endeavor is to help companies innovate and develop their business by encouraging the creation of bridges between companies and startups.

"Our goal is to create a hub where entrepreneurship can develop, grow and take flight," explains Bocconi for Innovation Operating Director, Nico Valenti Gatto. "We want to create a platform that provides services and support and whose work also contributes to halting the drain of talent away from Italy."

MASSIMO DELLA RAGIONE
Professor of Practice
Department of Finance
Bocconi University
and Co-head at
Goldman Sachs Italy

DIGITAL-TECH

"Foreign investors are attracted to firms with a digital-oriented business model. Yet this is not enough to attract capital. Investors are seduced by the certainty that new technologies will translate into products and services that eventually garner

significant revenues." Massimo Della Ragione knows all about it. Professor of Practice at Bocconi and co-head of Goldman Sachs Italy, he is in charge of D-Tech, the hub of Bocconi for Innovation dedicated to advanced technologies with industrial applications: science computing, robotics, artificial intelligence, cyber security, blockchain, and virtual reality. "D-Tech will not accelerate startup companies whose technologies simply improve a process, such as an app that allows you to book restaurants. We are interested in technologies proposed by teams that feature at least one Bocconi alumnus, or an alumnus of a Bocconi partner, and that combine significant social impact and high commercial potential. Our goal is to ensure that these technologies are translated into successful business activities and to prepare teams to meet investors." To do so, the program will focus on the most important stage of a startup: the acceleration. If we compare the entrepreneurial ideas in technology to the major stages of human life, D-Tech will take care of their adolescence and accompany them until adulthood. "In this crucial stage we can provide management training and nurture entrepreneurial spirit," he says. "We want to create a virtuous circle in which technological advances improve people's lives, create jobs and fuel innovation. We give discipline to entrepreneurial ideas. Is there a better place than Bocconi to do it?"

NICO VALENTI GATTO
Bocconi for Innovation
Operating Director



MADE IN ITALY

The emergence of competitors from new countries and the unstable international regulatory framework is clouding the future prospects of Made in Italy manufacturing companies. Until 2003, for example, Italy was the main exporting country in the furniture sector. According to UN Comtrade data, in 2017 Italy ended up behind China and Germany and could soon be overtaken by Poland. "Our companies often fail to identify effective distribution channels and have trouble in understanding the trends in the market," says Gabriella Lojacono, Associate Professor of International Management, Director of the Executive Master in Luxury Management at SDA Bocconi and head of the Made in Italy hub of Bocconi for Innovation. "A healthy economic system has to be powered by ongoing innovation of products and business models. Even companies that today represent Made in Italy in the world may be at risk. Feeding the system with new and dynamic ideas favors renewal and innovation. It is our duty to feed this long-term turnover by identifying promising business areas and ideas. In this ever changing scenario, B4i will help create new global champions." The idea is to create niche companies that will eventually grow. The Made in Italy brand evokes fashion, food and B2C. The accelerator will also deal with B2B (mechanics and cosmetics) as well as sectors that are often not mentioned such as pharmaceuticals and eyewear. "Made in Italy means passion, know-how, connection to the territory, culture of beauty, desire to dominate unexplored niches. As a professor, I see students with brilliant ideas and the will to put them into practice. This year, for instance, they have explored new formats in the food sector. Their wealth of ideas gives me hope for the future. B4i must scout for excellence and put the Bocconi expertise and network at their service."

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in Luxury Management
at SDA Bocconi

SUSTAINABILITY

Hundreds of thousands of people took to the streets of European cities recently in large climate change demonstrations. The German government has announced a Green New Deal. Christine Lagarde called climate change a pressing challenge for the European Central Bank. We are living the transition to a greener and more sustainable economy that requires the development of new solutions, technologies and business models. The

Sustainability hub of Bocconi for Innovation, led by Stefano Pogutz, Professor of Green Management and Corporate Sustainability, will work in this context. The hub will work in two main areas: green economy and social entrepreneurship. "Using, transporting and storing new energy sources will be crucial," Professor Pogutz says.

"Supply networks will be rethought to deal with intermittent renewable energy sources. Car batteries will store energy and then eventually return it to the grid." New opportunities will arise from sharing mobility, such as low impact material or from new solutions for the circular economy especially in industrial waste processing and recycling. "Innovative startups will facilitate the transition to more informed purchasing decisions through reward systems and supply chain traceability," he says. The hub is also interested in social entrepreneurship in health, inclusion and education. Even finance is moving towards responsible investments and impact investing. "Our hub will help entrepreneurs gain new skills," says Pogutz. "It will support them in product analysis tailored to market specifics and sustainability metrics. It will help in the recruitment of new employees and facilitate access to sustainability-oriented investors."



Parental satisfaction can vary

The direct and indirect costs of raising children can impact the decision to become a parent in advanced economies. In Germany, a study shows that higher-income parents were less satisfied

by Letizia Mencarini @



with income and education

In developed countries having a child is usually a conscious decision. While in the past, especially in agricultural societies, having a child could carry net economic benefits due to the low cost of care and the child's early contribution as an additional worker, in post-industrial societies the cost of having children is high and children remain financially dependent. Economic transfers are always made towards the child, while the benefits she or he represents for parents are usually only sentimental. So do the people who have more economic resources have a larger number of children? The relation is not so clear. Alongside the direct costs of having a child, there are also indirect costs, i.e. the opportunity costs of lost earnings and stunted careers for parents, especially for mothers. The overall income effect (the overall wealth effect is harder to measure) on the propensity to have a child is positive, if direct costs prevail, or conversely negative, if the indirect costs of becoming a parent are comparatively higher. The debate is both theoretical and empirical. According to the theory of the second demographic transition (Lesthaeghe and Van de Kaa, 1986), in developed countries the family has become less central in a shift to focus on personal fulfillment, so individuals with higher education and income levels want smaller or no families. In Becker's theoretical approach according to the so-called new home economics (Becker, 1981), the increase in women's (and men's) incomes can be ambiguous: it increases



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disposable income but also the opportunity cost of having children. The empirical evidence is unclear, too. On a macro level, given that all developed countries are characterized by low fertility rates below replacement level, the substitution effect would seem to prevail. However this does not seem to be the case in more advanced countries among developed countries, such as Scandinavia, where instead the positive income effect offsets the negative substitution effect. For this group of countries, the positive relationship also holds at the individual level, that is, women with higher incomes tend to have greater fertility. But in Germany the relationship seems to stay negative. In a recent study, we analyzed the trajectories of individual wellbeing of German parents before and after a child's birth, using income as a moderation factor. Although at different levels (more significant for fathers than for mothers), after the birth of the first child, the level of wellbeing is much lower than before conception, this negative effect is significant only for very high incomes. The effect is higher in the case of rich and educated parents. For less educated parents, the negative effects of having a child are not only smaller, but do not vary with income levels. The birth of a child is certainly a dramatic event in the life of individuals involving material and emotional changes, which can be satisfying due to our innate sense of altruism and continuation of the human species, but very often also carries psychological costs, such as dissatisfaction with the ensuing life of the couple. All this should be reflected in a level of individual wellbeing that stays constant across levels of income and education. And financial costs should be more burdensome for the less affluent parents anyway. The fact that the opposite seems to be true can be explained by the fact that the wealthier and more educated parents have sources of individual satisfaction linked to other life domains, for example their careers, so that having a child is on average less important for their personal fulfillment. Moreover, at least in the early years of the child, balancing work and family life is really difficult, particularly in a country like Germany where the welfare state hasn't been particularly generous with parents until recently. This cannot but increase the opportunity costs of having a child, especially for mothers.

THE PAPER

Does income moderate the satisfaction of becoming a parent? In Germany it does and depends on education by Marco Le Moglie, Letizia Mencarini and Chiara Rapallini



THE BOOK

Italian society is undergoing many rapid changes, but the demographic question is not at the center of political debate. In *Genitori cercasi* (Ube, 2018, in Italian, 160 pages, 16 euro), Mencarini and Vignoli take a close look at Italy's low population growth.





International laws protect cultural sites and objects in times of war. But places like Palmyra and Nimrud still get devastated. What is lacking are economic resources and the necessary skills to make people respect the rules

Cultural patrimony laws can a

by Roger O'Keefe @

People can be skeptical when they discover that rules of international law protect cultural sites and objects in times of war. If these rules did any good, why were Palmyra, Nimrud and Timbuktu devastated? What about the widespread pillage of antiquities in contemporary war zones?

Evaluating the effectiveness of international law on the protection of cultural property in armed conflict requires an appreciation of the medium in which we are working and the tools at our disposal. Law can only do so much to restrain conduct. No rules will ever stop those whose malice, greed, ideology or arrogance breeds contempt for the very idea of law. There are penal codes the world over, but twisted people still do twisted things. The same goes for the laws protecting cultural property during wars. Law also depends on ability in order to be effective. The best rules and will in the world are useless without the human and material resources to back them up.

Manpower, training, and administrative and technical systems all cost money, call for expertise, and cannot be mobilized overnight. Some state and non-state parties to armed conflicts simply lack the wherewithal to carry out their legal obligations, at least insofar as preventing the looting of large numbers of



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archaeological sites by the local populace or organized criminals. The good news, however, is that the great majority of states and even non-state armed groups place a premium on the international law for the protection of cultural property in armed conflict.

Moreover, this law promotes and creates mechanisms for international cooperation and assistance, including capacity-building, to facilitate its implementation. Nor are the rules just about restraining the bad guys. They also oblige the good guys to take all feasible precautions in armed conflict to keep cultural property out of harm's way or to cushion the blow. Transporting to safety the contents of museums at risk and insulating artistic and architectural treasures with sandbags and scaffolding, as envisaged by international law, have saved countless cultural sites and objects in war, from Leonardo's Last Supper to ancient mosaics and manuscripts in Syria, Iraq and Mali. Additionally, where international law cannot prevent damage, it can at least punish and compel reparation. Deliberate destruction and theft of cultural property in armed conflict are war crimes that are triable in both international and national courts, as leading German Nazis, political and military figures from across the former Yugoslavia, and Islamic extremists in the

achieve much

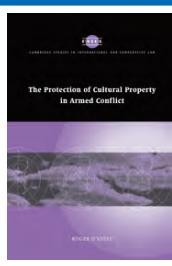
Sahel have all found to their cost. The same acts also constitute international legal wrongs for which responsible states, from Italy to Ethiopia, have been obliged by treaties of peace or international tribunals to compensate or, where possible, to accord restitution by handing back a plundered cultural object.

In the end, the rules of international law for the protection of cultural property in armed conflict are not perfect, just as no human institution is perfect. They do no more than they can. But what they can achieve and do achieve is more than people may think. ■



THE BOOK

The Protection of Cultural Property in Armed Conflict by Roger O'Keefe (Cambridge University Press). A detailed look at the evolution of art protection rules, sorting through the often overlapping provisions at a time when the topic is of increasing interest to the academic world and beyond.

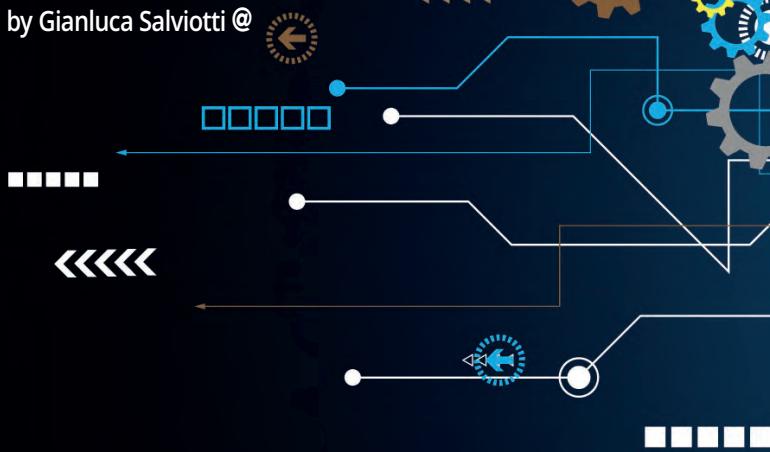




SME digitization calls for a

The digital transformation of Italy's SMEs is a work in progress. We need to reorient policy away from subsidizing technology purchases towards a networked model

by Gianluca Salvietti @



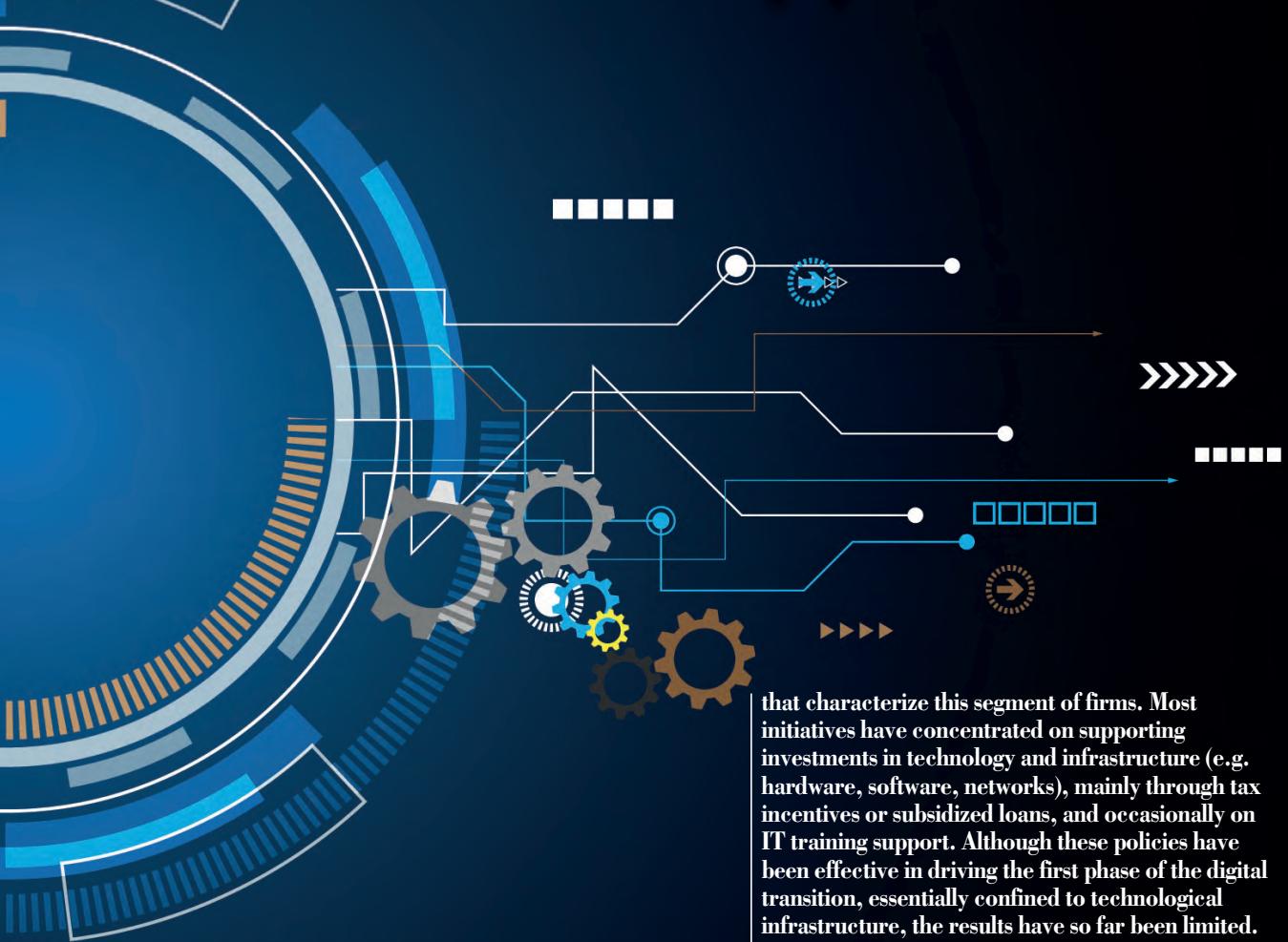
Not including micro-firms, in 2017 the approximately 150,000 Italian enterprises with a turnover of €50 million and less than 250 employees reported a growth in revenues and employment that recovered significantly compared to previous years. This long-awaited recovery has now seemed to slow down again, raising substantial concerns. Figures, for example, for the first half of 2018 show the growth in the birth rate of new firms fell sharply, dropping from +8.2% in 2017 to +1.3% in the first six months of the last year. On the qualitative front, the first nine months of 2018 showed a drop in the number of registrations in the Italian Register of innovative SMEs. So fewer small and medium firms and a lesser number of innovative SMEs? That would be a big problem, especially considering that the SME-innovation combination is the common denominator of Italy's best-performing SMEs in EU markets, according to a recent ranking released by the Financial Times. There is a lot of Made in Italy in this ranking (one fifth of the 1000 companies in the ranking were Italian), lots of entrepreneurship and, as we were saying, lots of innovation. In most cases this innovation comes in the form of the most interesting but also the most complex ingredient added to the business recipe, especially in the SME



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segment: digital transformation. The benefits of digitization have been widely demonstrated by now: more efficient management of production, operations and collaborations; stronger growth in international markets; and innovation of supply and business models. SMEs, however, still experience significant difficulties in reaping the advantages of digital technology. This is a problem that has deep and well-known roots, starting from intrinsic limits to the resources, skills and functional roles available for managing digital transformation. Add to this several factors such as organizational inertia and resistance to change, along with a lack of trust and reluctance to invest in digital technologies, given an unclear perception of potential returns. Without forgetting the role played by the industrial district or manufacturing sector, in particular when conditions are lacking for a transformation "en

district-based approach



“masse” of all the companies operating in the same industry: lack of inter-company cooperation, lack of support from leading firms, or lack of international development. Central and local public institutions have tried to develop policies supporting digitization to overcome the problems

that characterize this segment of firms. Most initiatives have concentrated on supporting investments in technology and infrastructure (e.g. hardware, software, networks), mainly through tax incentives or subsidized loans, and occasionally on IT training support. Although these policies have been effective in driving the first phase of the digital transition, essentially confined to technological infrastructure, the results have so far been limited. If the digitalization of SMEs to date is still an unfinished work, it is necessary to rethink policy by abandoning the traditional logic based on subsidizing technology purchases, to pursue a networked digitization model oriented towards the digital transformation of shared economic relations and processes. As shown by the results of a research program launched by the SDA Bocconi School of Management as early as 2016, policies should focus on the design and dissemination of technological platforms for whole districts and sectors, either governed by public agencies or developed by new forms of private entrepreneurship, in order to enable SMEs to interact more effectively and efficiently with customers, suppliers and partners, by improving industrial collaboration, job specialization, information sharing, and speed of market response. ■



THE BOOK

Companies must change their way of doing business, it's no longer enough "just" to have good products. They also need to imagine how they are used.

Trasformazione digitale (Egea, 2017, 208 pages, in Italian, €28) explains how the business impacts of digitisation are still developing, even after 20 years.



E-commerce is now a must

Bocconi alumna Ilaria Tiezzi, CEO of Brandon Group, says Italian SMEs still have huge margins for e-commerce

by Emanuele Elli @

Until as recently as a few years ago, the digital world was still perceived by Italian SMEs as a threat. Today most of Italy's midsize firms tend to consider it an opportunity, and even more, an obligatory step. In this transformation, the role of e-commerce professionals who know how to drive the development of family companies in manufacturing and elsewhere (i.e. most of Italian small and medium firms) has become increasingly strategic.

This is why the Brandon Group, which helps small and medium-sized Italian and European companies sell online through their platform, has recently chosen to strengthen its executive team by appointing Ilaria Tiezzi as its new CEO. A young executive who has already demonstrated that she is capable of combining business development with the management of innovation processes, Ms Tiezzi is a class of 2004 Bocconi graduate in Arts and Culture Management, where she also taught as a lecturer. Tiezzi's mission at Brandon is to further internationalize the platform, expand its geographical reach as well as the product categories managed, and diversify the range of platforms through which it sells its customers' products.

→ You worked in the past for Mediaset and Sky Italia, but also for emerging startups. What is the most obvious difference between innovating in a large corporation and doing it in a small firm?

In large companies, the most significant advantage is having senior figures who, even in the face of novel events, can contribute useful experiences and take on a leading role. However, decision-making is often slowed down by the hierarchy and a resistance to change that can derive from established practices which have well served the company in the past. Conversely, in start-ups, the need to quickly seize the opportunities

ILARIA TIEZZI
From Tuscany, age 37, Ilaria graduated from Bocconi in 2004 at CLEACC not only with honors but as one of the top 100 graduates of her class.

With such a strong starting point, Ilaria was snapped up by top companies including Mediaset, The Boston Consulting Group and Sky Italia. "At that point I became fascinated by digital technology and I decided to accept the professional challenge of joining V-Nova, a British startup. At the time it was unknown, but it ended up becoming the leader in video compression technology."

Now back in Italy after the birth of her first child, Ilaria Tiezzi joined the board of directors at Cellularline during its market listing, and from October 2018 has been the CEO of Brandon Group.

connected to change is felt more urgently and this makes innovation immediately more efficient. I believe that the ideal size in this historical juncture is the scale-up, like the one I find myself managing today, because we are not a huge company, but we have a critical mass of resources that enables taking on more risk in investment compared to a traditional startup.

→ **What propensity for digitization do SMEs have in Italy today?**

I have personally witnessed how companies are less distrustful about e-commerce now, and indeed many have now realized that it is an inevitable step. Until a few years ago, growth rates of physical retail channels were still significant and this permitted companies to postpone the decision. But today the economic crisis and the rapid change in consumer habits make online sales the indispensable channel. Moreover, over time a greater understanding of the management complexity raised by e-commerce has emerged and, consequently, fewer and fewer people think they can go it alone. Valid products always find a way to reach online shoppers, and companies know this well; it is better therefore to put oneself in the position of actively managing the flow rather than being a passive recipient.

→ **What is the space for further e-commerce growth for SMEs?**

There are still huge margins, if we think that about 90% of Italian companies are SMEs and that only 2 years ago no more than 6% of them were active in online sales. The potential of the international market for Made in Italy companies, in particular, is extraordinary. At Brandon, for example, 75% of the customer base is Italian, but if we look at the outlet markets, only 35% of sales are in Italy, the rest goes abroad.

→ **Which of the technologies related to e-commerce do you think is the most strategic to implement today?**

The most significant investment for us right now is the creation of a data lake and the analysis of Big Data. Since we sell on dozens of platforms and in different countries of the world, every day we collect an enormous amount of various data on categories, products, the most sought after brands. So we gather a unique knowledge of the market that we want to transfer to our customers. Moreover, our knowledge of the market is all the more strategic as it offers

us the opportunity to observe sales trends well in advance. In Italy, for example, the orders of typical Christmas products are made in April. We are therefore investing to increasingly refine our forecasting capabilities and develop a distinctive skill to help our customers select the products with the greatest sales potential and develop ad hoc commercial strategies for online sales platforms and by country. Our goal is to be increasingly a strategic partner, able to direct production and, last but not least, to optimize return on sales through increasingly sophisticated dynamic pricing. ■





EVERYONE MATTERS

Stéphanie Déjoie
Alumna, 2017.

Bocconi Alumni and Bocconi University come together and join forces to expand our global reach and spread our values. Knowledge, global network, spirit of innovation, dialogue will continue to guide us. Today, more than ever, every alumnus makes a difference, every new idea is one more step towards new goals, every contribution is important for the enrichment of all. Want to be part of this? Join us at bocconialumnicommunity.it

#KnowledgeThatMatters



Stu to

What does history teach us? Those of us who study the past for a living, and that includes economic historians, have asked themselves this question at least once in their lives. History students are likely to have done the same. "History is life's teacher," Cicero famously said in the *De Oratore*. Almost two millennia later, philosopher George Santayana expressed an equally favorable judgment on history: "Those who do not remember the past are condemned to repeat it." Summing up these positions, we could answer the question by saying that knowing history helps avoid repeating mistakes already made by others; in a certain sense, it provides us with a surplus of human experience compared to what we directly accumulate in the course of our lives.

However, it is inevitable, faced with the sad spectacle that human societies often provide, to ask if knowing history really enables us to avoid past mistakes (and horrors). Are Cicero and Santayana too optimistic, perhaps? Is it instead possible that we do not learn much from the past, or at least not enough to avoid falling over and over again into the same traps?

There are professional historians who argue, between the serious and the facetious, that, technically, we learn nothing from history (at least in the performative sense of guiding and orienting human behavior).

I am personally convinced that the lesson of history is actually useful to avoid some mistakes, or at least mitigate their consequences. But this is not why I tell my students to study history, including relatively remote periods, whose practical usefulness for the present is even less obvious. In fact, from my point of view, the utility of history is to put events, even those unfolding before our eyes, in a different and more complex perspective. The historical perspective only in rare cases shows us the right or the wrong thing to do. Much more often, it helps us to understand what is actually happening, or has just happened, and the real nature of



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the options that we are facing.

To clarify, take the example of China's emergence in the global economy, a macro-historical phenomenon before our very eyes and which is likely to have major consequences for future global arrangements. Let's limit ourselves to one aspect: China's level of development relative to the West. In terms of per capita income, China is still markedly behind the most advanced OECD economies, but it is catching up quickly. The situation was different in the past, five or six centuries ago, when China had comparable per capita income and living standards, as well as levels of knowledge, with respect to the most advanced areas of Western Europe. All scholars are basically in agreement on this point. There is no agreement, however, about the timing of occurrence of the so-called Great Divergence, which put Western Europe ahead of East Asia, which is to say China. For some, divergence in growth patterns started around year 1500, at the time of the opening of the new Atlantic trading routes. For others, it is a much later process, starting with the Industrial Revolution (so after 1750).

In what sense are these two different views of the historical process relevant to the way we look at the emergence of today's China? Those who believe that divergence began in a more remote past tend to see the current historical dynamics as exceptional and unprecedented, thus also worrisome and threatening, i.e. the rise of China corresponding to the West's

dying the past to comprehend the present



The study of history helps us understand how economies and societies evolved and provides a rationale to assess current political debates and paths of development

by Guido Alfani @
Stories by Claudio Todesco @



decline. On the other hand, those who believe that economic divergence between the two regions is a more recent trend, since it's a consequence of the Industrial Revolution (and of Europe's temporary ability to control, through its own colonies, the resources of a much larger part of the world), interpret China's rapid growth as simply the return to the multi-millennial pattern of substantial balance between East and West. It therefore gives a much more reassuring interpretation. Although today the first interpretation is prevalent, the point that I would like to emphasize here is that embracing one or the other position allows you to produce a very different narrative, which is then expendable in current intellectual, and especially political, debates. We should thus be aware that historical narratives are never neutral, but reflect precise convictions and, frequently, overt or covert aims; it is thus essential to be capable of critically analyzing the news and information that bombard us daily, and for this historiography is indispensable. I will provide a second example, also linked to the issue of long-term divergence between regions of the world: in this case, between Northern and Southern Europe. Sometimes, I ask this question in class: why is the European Central Bank located in Frankfurt? Obviously, one could provide an excellent answer based on the political-diplomatic dynamics that formally led to this choice, perhaps adding some considerations on European geopolitics in the late Twentieth century. However, our perspective on the issue changes if we broaden our view a little. If the European Central Bank had been established in 1300 instead of 1998, it would have almost certainly been headquartered in Florence. If it had arisen in 1600, it is very likely it would have been located in Genoa. What happened in the meantime? Many things, of course, but one of these was that Italy, the veritable core of the European economy in the Middle Ages and at the beginning of the modern age, slowly slipped towards the periphery of the Continent while the center of the European economy moved north. Therefore, certain choices made today are the direct result of historical processes that began centuries ago. It is not always pleasant to be aware of historical dynamics: nobody likes to be on the periphery! But it certainly helps us understand the nature of the economic problems Italy is facing. ■



THE BOOK

The history of the Nineteenth Century, historians, sources, and evaluation of sources: *Storia* by Giovanni De Luna and Chiara Colombini (Egea, 2017, in Italian, 144 pages, €10.90) looks at how history is narrated and how it is used in public debate.



GIUSEPPE BERTA The evolution of entrepreneurship from Ford to Apple

"The concept of entrepreneurship is overly broad, and therefore ambiguous. History can help us to better understand its characteristics and functions." Giuseppe Berta, Associate Professor of Contemporary History, traces the evolution of the entrepreneur in *"L'enigma dell'imprenditore (e il destino dell'impresa)"*, a book published by Il Mulino in 2018.

"Entrepreneurship is a function of culture," he says. *"During the Industrial Revolution, which took place in England in the second half of the 18th century, the category of entrepreneur did not even exist. Entrepreneur is a word borrowed from French. According to classical economics, from Adam Smith onwards, there was no entrepreneur. There was the person who employed people and who was therefore defined by his role: the employer."*

The entrepreneur, as we know him or her today, was born in continental Europe. They undertake to organize and assume risks. They use their creative intelligence to improve a company's business.

This idea, less objective and more subjective, has proven successful. In *"The Theory of Economic Development,"* Joseph Schumpeter turned the creative function of the entrepreneur into the engine of economic growth. The entrepreneur anticipates times to come and recognizes unexpressed needs. *"In the 20th century, the man who best embodied these virtues was Henry Ford. Today, this man is Steve Jobs. He was not an*

inventor, he was the Schumpeterian entrepreneur who envisioned the future. He was the turning point between the culture of enterprise and innovation in the 20th and in the 21st century. He had an unmistakable aesthetic and established that what is beautiful is good and vice

versa. Today, we swing between the idea of great entrepreneurs such as Elon Musk, Mark Zuckerberg or Jeff Bezos and the daily dimension of entrepreneurship." Entrepreneur is still an ambiguous word: only history can give it a meaning.

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MARISTELLA BOTTICINI Religion and demographic growth: insights from Jewish history

History can help us to assess the impact of cultural and religious norms on demographic and economic patterns. In "Child Care and Human Development: Insights from Jewish History in Central and Eastern Europe, 1500–1930," Maristella Botticini (Department of Economics at Bocconi University, Innocenzo Gasparini Institute for Economic Research), Zvi Eckstein (Interdisciplinary Center IDC, Israel) and Anat Vaturi (Hebrew University of Jerusalem) study the case of the Jews in Central and Eastern Europe in pre-modern and modern times.

The total population in the area grew at the annual rate of 0.43% from 1500 to 1930. The Jewish population growth rate was almost 1.4%. In 1500, Jews were only 0.13% of the total population in the vast geographical area of Poland and Lithuania. By 1880, just prior to the great waves of immigration in Europe and to the

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US, they were over 15%. The authors surveyed primary and secondary sources and documented that child care practices rooted in Biblical and Talmudic rules account for the lower infant and child mortality among Jews. This, in turn, explains about 70% of the difference between Jewish and non-Jewish population growth. Some of these rules emphasized the importance of breastfeeding the newborn child immediately after birth, they recommended longer breastfeeding duration and the use of one source of breast milk. The use of mechanical contraception was permitted during lactation to preserve the mother's ability to nurse. Other rulings concerned diet, personal hygiene of mother and newborn, support from the wife's family. "Many centuries later, the recent medical research has shown that these rules and practices actually improve the health and survival of infants and children. They enhance cognitive and non-cognitive skills and account for the lower infant and child mortality among Jews," Maristella Botticini says. "Two thousand years ago, Judaism enforced education in a world of almost universal illiteracy," she says. "It also caused lower infant and child mortality rates, contributing to Jewish economic prosperity and intellectual achievements in Eastern and Central Europe in the early modern and modern times."



THE PAPER

In Child Care and Human Development: Insights from Jewish History in Central and Eastern Europe. Botticini and co-authors assess religion on development of Jewish population.

ANDREA COLLI Mapping the Benetton family's learning curve at Edizione

To understand an organization, it is not enough to analyze its current state. It is necessary to study its evolution over time. History, says Andrea Colli, Head of the Department of Social and Political Sciences, can help us to better understand the present, not to predict the future. "History is not a series of events that happened in the past," he says. "It is not the answer to the question of 'what happened.' It is a tool that retraces events and relationships to help us understand present-day phenomena, their strength, their weakness."

For example, managers and entrepreneurs are not necessarily aware of the road they have traveled. Writing a company history is a way to show them the route they took. "History is this act of looking back," he says. This is the logic Colli applied in a case study of Edizione, the holding company established in 1981 to diversify the Benetton family's investments. Today, Edizione operates in many areas, from transport infrastructure to food and beverage. Its concessions contracts in the public sector

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Head
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yield steady returns and investments. It did not happen in a day, nor was the success of the holding company the result of planning. It happened at the end of a long process of learning and adaptation. Resources and knowledge have been accumulated over time. "History teaches us that the Benetton family have learned to create a management team separate from the ownership," he says. "They have appointed high-level managers to key positions and curbed the temptation to meddle in decision-making."

MANUELA GERANIO Debunking the myth that stock markets were born in Ancient Rome

The study of history requires scholars to analyze primary sources. Misinterpretations may occur when researchers do not take the context of events into account. One could otherwise jump to wrong conclusions, like for example that a transfer of shares occurred during the late Roman Republic, around 50 BC. The claim is based on the alleged existence of trading in 'shares' of societates publicanorum, corporations that offered public services such as road construction and tax collection.

Geoffrey Poitras (Simon Fraser University) and Manuela Geranio (Department of Finance, Bocconi) demonstrated



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that this claim can not be supported in their paper "Trading of shares in the Societates Publicanorum?", published in *Explorations in Economic History*. "Tax collection organizations in late Roman Republic were nothing like modern public limited companies," Manuela Geranio says. "The equites, that is the knights who could aspire to become members of the societates, were a minority of the population and could be held personally responsible for the company's liabilities. The societates had no legal personality. All members needed to agree with the appointment of new sub-members and in any case these appointments did not constitute a sale of shares." The modern stock exchange requires that shares be associated with risks and returns, that they be freely transferable, that there be a speculative goal: none of these assumptions was true in Roman times. Transfer of goods, currencies, and government bonds precede the transfer of shares that would occur only the 17th century. "It is necessary to carry out careful analysis of the historical, legal and institutional context before offering appealing, but debatable interpretations," Manuela Geranio says.



THE PAPER

Trading of shares in the Societates Publicanorum? by Manuela Geranio debunks an assumption that Romans during the late Republic traded shares on a precursor to today's stock market.

BEATRICE MANZONI Studying past economic failures to learn lessons for success

The Scottish Parliament building in Holyrood, Edinburgh, has won nine major international architectural awards. It is considered to be a masterful piece of architecture, but also a dismal economic failure. Inauguration was set for 2000, but it only finally opened its doors in 2004. Costs increased from a budget of £40 million to a final cost of £431 million. "Everything that could have gone wrong, went wrong," Beatrice Manzoni says. Along with Leonardo Caporarello, she uses the Holyrood story both as a case study in SDA and Bocconi classes and as an online management simulation designed by the SDA Bocconi Learning Lab.

"The clients started off on the wrong foot," she says. "They asked for a sensational project that was also cheap and delivered quickly – it was an unrealistic goal. The architectural competition was held with no shared evaluation system. There was no real project execution plan and risk assessment policy. Also, the tendering and construction procedures were not compatible with a reasonable timetable."

Team dynamics caused further trouble. Four different project managers were appointed. The starchitect demanded to take part in the decision-making process, but failed to attend meetings. Cultural differences among team members, who were partly Scottish and partly Spanish,

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SDA Associate
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created tensions. As if that was not enough, both the architect Enric Miralles and the political project leader, Prime Minister Donald Dewar, died in the year 2000. "This is a textbook case of bad project and team management. When managing a complex multi-actor project, it is essential to oversee both its 'hard' and 'soft' components. It is fundamental to establish a clear timetable, costs and objectives, design an effective decision-making process, plan every step and review risks. It is also important to appoint a project manager with both technical skills and relationship abilities. Architects who want the spotlight should be carefully managed. When it comes to complex projects, genius is collective."



ELISABETTA MERLO Investing in corporate heritage can create competitive benefits

In an age when entrepreneurs are often described as innovators and disrupters, a project by Elisabetta Merlo and Mario Perugini (Department of Social and Political Sciences) highlights the importance of corporate heritage. This is the unique and inimitable legacy that every company receives from its past. It can be promoted by opening archives to the public or through museums, foundations, jubilee volumes, or campaigns that revive old products and brands, such as for example Fiat 500. The project is being carried out with the AUB Observatory on Italian Family Companies (AIDAF, UniCredit and Bocconi). It led to the construction of a data set on corporate heritage investments of 862 Italian firms with a turnover of at least €50 million in 2000-2016. As Mario Perugini explains, "One of our many goals is to understand the drivers of investment in corporate heritage, in relation to the ownership and governance." Researchers asked themselves whether family businesses are more likely to invest in corporate history, as the qualitative literature suggests. "According to preliminary results, the investment in corporate heritage is a lever used more by external managers than by members of the founding family," Elisabetta Merlo says. Company performance is another unexpected aspect: leverage of history is used most frequently by firms with dismal economic results in the previous five-year period. In other words, the investment in corporate heritage is not a luxury that only wealthy family businesses can afford. It is a tool used to recover competitive margins. "This project introduces the



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new idea of defining and using an index of the relationship between investment in corporate history and other variables including ownership, governance, the type of business, whether B2B or B2C, economic performance, Italian or foreign ownership," Professor Merlo adds.

Ricordi and its music The value of memory

Pierluigi Ledda, Bocconi alumnus and Managing Director of the Ricordi Historical Archive, was charged with turning a vast collection into an easy-to-use digital platform. Here is how he did it

by Ilaria De Bartolomei @

Achieving a successful business model with culture has always been a challenge throughout history, and Bertelsmann, the media corporation which acquired the Ricordi record company in 1994, entrusted Pierluigi Ledda with the task of managing the Ricordi Historical Archive. A Bocconi class of 2010 graduate in Economics and Management of Arts and Culture (CLEACC), Ledda was hired just when Ricordi was turning its vast collection of private documents, including librettos, composers' letters, music scores, photographs, sketches of opera sets and

costumes into a historical archive officially acknowledged by the Italian Ministry of Culture.

"Ever since my university years, I have wanted to work in the record industry or in musical events management," he says. "Bocconi taught me to look at the complexity of situations, observing problems from multiple points of view. I found this approach, which falls somewhere between the holistic and the pragmatic, extremely useful when it came to reorganizing the Ricordi Historical Archive according to a logic of financial sustainability." The collection, hosted by Brera's Braidense National



MARA SQUICCIARINI Religion and educational impact on 19th-Century French economy

During the Second Industrial Revolution (1870-1914), as technology became skill-intensive and human capital became crucial for industrial development, the French government decided to introduce technical education in primary schools. During the same time period, the Catholic Church promoted an anti-scientific and conservative agenda, and opposed the adoption of the technological curriculum. This is not the setting of a historical novel, but the premise of "Devotion and Development: Religiosity, Education, and Economic Progress in 19th-Century France," a paper by Mara Squicciarini, Assistant Professor at the Department of Economics. The paper won the Young Italian Economist Award 2018 for the best study presented by an under-35 scholar at the annual meeting



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of the Società Italiana degli Economisti (SIE, the Italian Economists Society). Mara Squicciarini used data collected from primary and secondary sources to perform an analysis at the French department level. She compared data on industrialization and schooling collected by the French government with seven indicators of religiosity at the local level, the main being the percentage of priests who confirmed loyalty to the Catholic Church.

"Before choosing whether to accept or reject the oath of allegiance to the Civil Constitution, the clergymen needed the approval of the local community," she says. "It was sort of a referendum. We can use it as a measure of religiosity, together with data on church attendance or the number of readers of the Catholic newspaper *par excellence*, *La Croix*."

Professor Squicciarini showed that the more religious districts had lower economic development not before, but after 1870. The more religious areas saw a slower introduction of the technical curriculum. "This story teaches us that not only the quantity of human capital - school enrollment rates - is important, but above all it is the curriculum that really matters. The intensity of cultural factors, such as religion, is crucial. Religion is not always a barrier to economic growth, but it can slow it down."

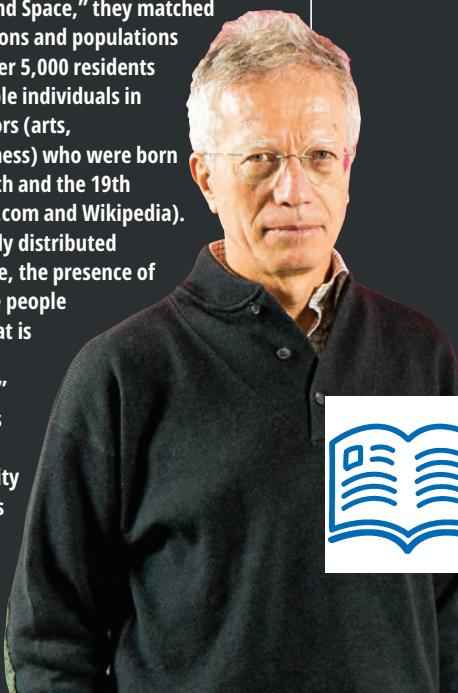


THE PAPER

The impact of religion on economic growth is the focus of *Devotion and Development: Religiosity, Education, and Economic Progress in 19th-Century France*, by Mara Squicciarini

GUIDO TABELLINI From Baghdad to San Francisco: good government draws talent

Baghdad during the Islamic golden age, Florence in the Renaissance period, early 20th century Vienna, and more recently, the San Francisco Bay Area are all examples of clusters of creativity and innovation. Guido Tabellini (Department of Economics) and Michel Serafinelli investigated the determinants of these agglomerations. In "Creativity over Time and Space," they matched historical data on institutions and populations of European cities with over 5,000 residents with data on 21,906 notable individuals in different creative endeavors (arts, humanities, science, business) who were born in Europe between the 11th and the 19th century (source: Freebase.com and Wikipedia). "Given that talent is evenly distributed throughout time and space, the presence of a large number of creative people shows an environment that is more likely to capture innovation and creativity," Tabellini says. The authors matched the number of famous people born in a city and the number of famous immigrants (per 1,000 inhabitants) with a



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historical data set on local institutions. They showed that births of creative people and famous immigrants are spatially more concentrated than population. It means that these talented people were not born necessarily in big cities. Moreover, creative clusters exist in many disciplines. In addition, births and immigration display persistence: cities that are at the height of creativity in one century retain an advantage in the following century.

Finally, surprisingly enough, "local prosperity, measured by population and wage growth, does not play a crucial role in the formation of hubs of creative talent. It is the other way round: becoming a creative cluster contributes to economic growth. The effect of local political institutions account for the agglomeration of creative people. The emergence of autonomous cities that protected economic and political freedoms and that also had forms of representative democracy, albeit limited, facilitated the attraction and production of creative and innovative talent," he says.



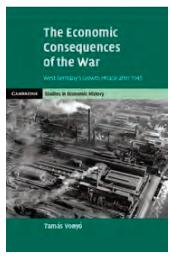
THE PAPER

Why is creativity often concentrated in one place at a certain time? Michel Serafinelli and Guido Tabellini find out in *Creativity over Time and Space*



THE BOOK

In "The Economic Consequences of the War," Tamás Vonyó finds new reasons for Germany's post war economic growth. Rather than economic reforms or the Marshall Plan, Germany's success came from a largely intact industrial base and increased workforce from ethnic Germans expelled from Central Europe after 1945.



TAMAS VONYO Revising reasons for Germany's postwar economic boom

When the German military forces surrendered in May 1945, bridges over the Rhine were destroyed, the transport system had stopped and cities lay in ruins. Yet West Germany subsequently enjoyed rapid economic growth that most contemporary observers ascribed to the liberal reforms of 1948 and to the Marshall Plan.

Quantitative economic history has since revised this view. "The Economic Consequences of the War: West Germany's Growth Miracle after 1945" (Cambridge University Press, 2018) summed up a decade of research by Tamás Vonyó, Assistant Professor at the Department of Social and Political Sciences.

"West Germany did not start again from scratch," he says.

"Manufacturing industry survived the war remarkably intact and saw its productive capacity expand." Millions of ethnic German refugees expelled from Central and Eastern Europe after 1945 enhanced the labor force despite horrendous war casualties. The West German economy was more richly endowed with both physical and human capital than ever before. Low productivity, not inadequate resources, was responsible for modest industrial output in the post-war years.

Professor Vonyó collected detailed industry statistics and census data to show how geographic dislocation and structural imbalances owing to spatial variation in strategic bombing and the post-war division of Germany can explain this low-productivity paradox. The elimination of these bottlenecks, in turn, fueled post-war recovery.

Macroeconomic policy mattered surprisingly little. "The state's biggest contribution to the economic miracle was the rebuilding of the urban housing stock and the resettling of refugees.

Marshall aid was equally insignificant in Germany and the investments it financed were allocated to declining industries," Professor Vonyó notes. "The German miracle is a fine example for why quantifying history matters, as it can radically alter views based on contemporary observation."

TAMAS VONYO

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PIERLUIGI LEDDA
An Alumnus
Bocconi, now
Managing Director
of the Historic
Archive at Ricordi

Library in Milan, is one of the most extraordinary private collections relating to the great opera composers, in particular Giuseppe Verdi and Giacomo Puccini.

"It is an incredible heritage that includes letters exchanged between music publishers and musicians, copyright registers, which Ricordi first introduced in Italy, as well as contracts stipulated for the staging of operas. What emerges from these documents are exceptional examples of cultural enterprise management, well before any theorization of the subject: the staging of operas, in terms of technical sophistication, was not very far from today's movie productions."

Ledda oversaw the digitization of the Ricordi archive on easy-to-use platforms, so as to make its contents accessible to the greatest number of users from every part of the world. "Our aim is to offer researchers and musicologists a unique source of knowledge in the world: the history of the music publisher Ricordi and its composers."

The archive is also available to the general public, although reaching this target is a real challenge. "To win it, we have developed a hybrid formula that weaves digital and real-life elements.

The exhibits can capture attention because the original physical documents can spark strong feelings; we can complete this type of experience through online consultation and the use of interactive software: digital and physical can coexist because they serve different functions." From Verdi to Puccini, through Luigi Nono and Lucio Battisti, the history of the Ricordi label is marked by music giants.

"Today there are no more mass phenomena in popular music, like Led Zeppelin in 1970s, but we are facing an unprecedented wealth of genres. Contemporary pop music is able to speak to the general public while experimenting at the same time; I'm thinking of artists like Kanye West and Frank Ocean, who have been capable of innovating while retaining pop's accessibility, by flirting with the worlds of fashion and art." ■



Firm generated content can

Firm generated social media content can create future income. But only if it's not too positive,

by Anatoli Colicev @

Social media marketing spending by American companies hit a staggering \$13.7 billion in 2017. Yet, in a recent survey of chief marketing officers (CMOs) conducted by Duke University, only one in six CMOs agreed that social media marketing has a quantitatively proven impact on business performance.

The disconnect between social media marketing expenditures and their perceived effectiveness is alarming. Thus, it becomes imperative to investigate how and under which conditions social media marketing can lead to better performance.

While this can be addressed by analyzing the effect on sales, a more long-term oriented approach is to investigate how social media affects customer metrics that eventually translate into profitability. One key challenge is that consumers mostly use social media to connect to each other, making it yet unclear whether active marketing through this media helps or hurts customer metrics.

In a study with Ashish Kumar and Peter O'Connor, we address these issues by studying how firm



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generated content (FGC) and user generated content (UGC) affect brand awareness, consideration, purchase intention, and customer satisfaction.

For this research, we used a sample of 19 US brands and analyzed their daily social media engagement on Facebook over a two-year span. We collected daily volume, valence and richness (e.g. image, video) of social media buzz associated with the brand. The volume of buzz is given by the total amount of user and firm generated conversations around the brand and is relatively straightforward to measure.

For example, brands can directly fetch the number of likes, comments, shares and overall impressions from Facebook Insights.

However, measuring the valence of social media posts is more challenging. Given the vast amount of social media data, brand managers cannot read every single comment, post and re-share.

A more pragmatic approach, which we employ and recommend, is to use machine learning algorithms that allow us to automatically and systematically extract the tonality and other features of posts from a



have impact if tone is right

researchers say. Use neutral language. What counts the most is who you really are

vast amount of textual data.

We then related social media measures to consumer metrics collected from a 5 million panel of customers from YouGov group, a marketing research company specialized in survey data.

Using the estimates from our model, we find that user generated content has a strong relationship with brand awareness. In other words, due to higher virality and reach, user generated content is the most effective way of spreading brand identifiers and increasing awareness.

We also find that firm generated content is more effective in driving consideration and purchase intent. Thus, firm generated content seems to be

effective in driving future profitability. However, it's not that simple. Indeed, in order for firm generated content to be effective, it should not have a strong positive tone. Why? A positive tone can be perceived as being overly commercial and pushy. It implies that one of the hallmarks of marketing communications in traditional settings - adopting positive language - may not be effective in the social media context. So, what should firms do? They should use a more objective, neutral tone in their social media posts and try to employ more videos and images.

Importantly, we also find that brands with good corporate reputation have more leverage in terms of how they use social media.

These findings echo the paradigm that being an ethically responsible business provides a wide range of positive externalities.

We find that even positive language in firm generated content is not detrimental to brand perceptions for brands with a higher corporate reputation.

Thus, keeping the house in order seems to be an overall effective strategy in the digital age. ■



THE PAPER

Modeling the relationship between firm and user generated content and the stages of the marketing funnel
by Anatoli Colicev, Ashish Kumar, Peter O'Connor.

Globalization requires a global



A globalized world calls for a multidisciplinary approach that unites doctors, managers and policymakers to deal with global health issues

by Eduardo Missoni @

The profound transformations produced in less than a century since the start of globalization transcend national boundaries and regulatory mechanisms in a manner that goes far beyond a more intense connection between states, redefining the geography of social relations and requiring new categories of analysis and intervention in the field of health governance and health policies.

The planetary scale of current environmental, social and economic problems that are dramatically reflected in health indicators require public health policies that take into account the global and cross-sector nature of determining factors.

Global health studies differ from the more traditional international public health studies that deal with initiatives negotiated and agreed in the context of relations between national states.

approach to health problems

They also differ sharply from purely cosmetic operations such re-labeling so-called tropical medicine - the various health activities carried out in the context of international development and aid programs - as a global health endeavor.

The global health approach instead looks at health in its broadest sense, not only as the physical and mental condition of an individual, but in its correlation with social well-being.

It is a necessarily interdisciplinary approach that addresses health issues in a transnational and global, planetary dimension, where the social, environmental, economic and political determinants intersect with increasing complexity, inevitably interacting with national and local systems.

To give just a few examples, think of the transformation of ecosystems caused by climate change, where despite the evidence of environmental risks for health, commitments undertaken at a global level still delay the necessary policies and investments to reduce their impact, with consequent inexorable growth in the social and economic costs of maladies due to pollution and global warming. The increase in the proportion of chronic diseases is also significantly affected by consumption of ultra-processed foods, promoted by aggressive production and



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commercial strategies that only a joint transnational action of all sectors of society can effectively counteract.

In this sense, the [Framework Convention for Tobacco Control](#), which came into force in 2005, constitutes an important reference model for other industries.

The easy spread of epidemics, the impact on health and access to healthcare in relation to free trade agreements, the health of migrants, the consequences of an uncontrolled circulation of medical information on social networks, are other examples of important issues in global health.

To make the goal of “healthy lives and well-being for all, at all ages,” written into [the WHO mission statement on sustainable development](#), become real and not rhetorical, we need a major paradigm shift.

Human health and the global ecosystem must be placed at the center of political, social and economic actions taken at global, national and local levels, ensuring there are appropriate interactions and alliances between stakeholders, so that “no one is left behind.” And thus doctors, managers and policy makers interested in healthcare, irrespective of the field they work in, should arm themselves with the skills and knowledge of global healthcare. ■

What companies and others can do

To protect public health we need everyone's cooperation. Here's what Bocconi alumni Dadari and Capello ask of stakeholders in order to meet this challenge

IBRAHIM DADARI

From vaccines to screening techniques

Achieving the global health targets of the Sustainable Development Goals (SDGs) by 2030 will require significant inputs and innovative approaches. Public and private companies and institutions can play an important role in achieving global health targets including the unfinished business of the MDGs, non-communicable diseases (NCDs) and universal health coverage (UHC). Institutions and companies should advance and promote special focus on research and innovation geared at preventing or managing targeted diseases, such as rapid screening techniques for early detection of NCDs, new or heat-stable vaccines for emerging infectious diseases and even NCDs, etc.

Companies can also fund global health projects in the form of corporate social responsibility (CSR), which should prioritize equity-focused interventions, considering universal access is a key focus of the 2030 global health agenda.

Communities and development agencies should be able to tap into these available funds. Companies can also serve as voices of global health.



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Information and access to services



CECILIA CAPELLO
Health Advisor
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Companies should support governments in designing and implementing public health policies that address health determinants, so that people have the information and the means to stay healthy. They have the duty to protect people's right to health, especially those who are most vulnerable, such as women, migrants, children and people with disabilities, whose right to health is often unprotected or even violated by current governments.

Companies must protect the right to access goods and health services and the citizens' right to know how to be healthy and stay healthy, how to access a healthy diet and exercise, have access to vaccines and other preventive measures, sexual education in schools, etc. Sustainable development goals can be achieved only if companies enter into partnerships with citizens, civil society, non-governmental organizations and the state in support of people's right to health.



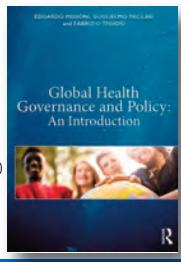
THE BOOK

In *Salute circolare* (Egea, 2019, 128 pages, in Italian, 15 euro), Ilaria Capua discusses the need to return to a view of medicine whereby human beings are part of a natural balance. Rich in anecdotes, the book points to the role that Big Data can play.



THE BOOK

Global Health Governance and Policy (Routledge), by Missoni, Pacileo and Tediosi traces the foundations of global health by exploring the relationship between globalization and its social, economic and environmental effects.



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STEFANO FROSI

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Building better tools





by Massimo Marinacci @

The financial crisis is behind us, but the world arguably holds more risks than ever for investors, policy makers and managers. Here is a look at the latest developments in the art and science of risk management



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Risk is the water in which investors usually swim. Their job is to make decisions, to choose one action over another. To do this, they must carefully weigh all the options: they can be good or bad at it, but this is how the game must be played. In September 2008, the financial firm Lehman Brothers went bankrupt, setting off the financial crisis that had a knock-on effect across the globe in the following months, destroying large amounts of capital, countless jobs and turning a risky situation into an uncertain one. Investors suddenly found themselves with no idea of what was going to happen next. It was impossible to weigh the probability of each of the possible scenarios and choices had to

6 steps to understand risk

be made based on very little data. What's worse is that no one even knew what the possible scenarios were: the future had turned into an unknowable specter of unforeseen contingencies.

The problem was no longer dear old risk: investors were now faced with an unusual and disturbing uncertainty. Their reaction was essentially to freeze. Paralysis is the typical response people and markets have to uncertainty: it is the result of reasonable prudence in the face of an incomprehensible situation. As often happens, however, this reaction made things even worse. The bankruptcy of Lehman Brothers reveals some of the fundamental characteristics of uncertainty. When a situation is uncertain, it is difficult to discern which future scenarios are most likely. In some cases it is even difficult to imagine which scenarios are possible and which are pure fantasy. This state of things often translates into the inability to make decisions or take action.

Many of today's events provoke the same reaction, because uncertainty is now everywhere again (often evoked with the generic term "risk" which includes what we refer to here as risk and uncertainty).

Climate change, for example, is the most important form of environmental uncertainty. Humanity has always been exposed to the risk of abnormal, if not catastrophic, meteorological events: shepherds have to face the risk of



drought, farmers face the risk of floods, sailors face the risk of storms and generals face the risk of snow. Each of these people has expectations about the likelihood of such events happening, and for this reason uses the clues they have available to decide whether to run the risk or take precautions to protect themselves.

Imagine, for example, an area of the world where shepherds know from experience that a period of drought occurs more or less every ten years. They don't know if it will hit next year or in five years. But based on these expectations, they can estimate how many provisions to set aside to be prepared, or they can create an emergency garden when signs show that a drought is on the way.

However, things go very differently with climate change. The shepherds' problem is no longer about when the drought will arrive. Now their problem is that the expectations and clues they have always trusted no longer work. There could be five years of drought, or their once-green region could turn into a desert forever.

According to the Intergovernmental Panel on Climate Change (IPCC), over the next century, the global temperature could increase between a few tenths of a degree and five degrees (in the best and worst scenarios, respectively). The possible trajectories of global warming between these two extremes translate into different local scenarios in the region of our shepherds.

What is the most likely? For shepherds it is difficult to guess. The outcome depends on unpredictable agents who influence the climate all over the world: states, companies, communities, individuals, etc. From the examples given above, we could conclude that uncertainty is a curse that produces only bewilderment and paralysis.

But there is always another angle. Uncertainty rewards intelligence and entrepreneurship. Those who know how to better process the available information and those who are more inclined to take risks can benefit greatly. Talent and merit shine in conditions of uncertainty. Uncertainty is what makes life interesting and not banal.

But we must never forget that it is also a source of inequality: a game with winners and losers, in which fate, more than merit, can play a decisive role (even the best players lose with bad cards).

Uncertainty is a fundamental characteristic of human society, which shapes it and differentiates it from the natural world. While the particles that compose matter passively obey natural, deterministic or probabilistic laws, the individuals and groups that make up a society are active agents: their behavior is guided by their interests and changes according to their ideas and expectations. The economy is thus different from physics.

For example, in order to be effective, an economic policy action must take into consideration how people will change their consumption and saving decisions according to their interests and expectations. For example, a reduction in income tax that causes an increase in public debt can result in an increase in savings, and not consumption, if people expect taxes will then rise to cover the larger debt.

Compulsory and coercive measures can work only up to a certain point, even in totalitarian systems, if they are not accompanied by incentives that align them with people's interests.

In short, risk and uncertainty are what make human society something special and different from the rest of the natural world. ■

MASSIMO AMATO Investors must beware of risk of believing they can calculate risk

Uncertainty is the only certainty there is, the readers of John Maynard Keynes' "The General Theory of Employment, Interest and Money" must have thought in 1936. We need to dust off this idea in the context of financial markets, says **Massimo Amato**, researcher in Economic History.

"According to Keynes, economists struggle to accept the existence of incalculable risks," he says. "This is what Keynes called 'fundamental uncertainty.' The rationale of financial markets, by contrast, is their capacity for standardization of risk by the quantification of asset prices." This is not antiquated economics. Two mainstream scholars have recently addressed the issue of the opacity in financial markets. "Olivier Blanchard said that, due to the unpredictability of the markets, a new crisis is highly possible. Paul Romer wrote that in the last thirty years macroeconomics has not progressed, it has actually gone backwards. A Nobel prize-winner, Romer said that the implicit assumptions of econometrics do not provide reliable indicators of the economic cycle."

Massimo Amato therefore points out

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the need to restore a greater sense of prudence. "The idea that we can price every risk leads us to take any risk. This argument does not take into account the systemic risks that, once revealed, throw calculations off course." A new crisis will have unforeseen and unmanageable effects. According to Amato, it is a good idea to adopt financial models not based exclusively on price risk considerations. They should take into account the existence of events we are not aware of.

"As Keynes said, the only thing we know is that there are things we will never know," he says. "We should be aware of this, in the name of market efficiency."



THE BOOK

From One Precariousness to Another: The Ideological Role of Financial Calculation in the Outbreak and Perpetuation of the Crisis - Preliminary Considerations Based on Chapter 12 of the General Theory is the chapter by Amato in "The Crisis Conundrum," edited by Mauro Magatti (Palgrave Macmillan, 2017).



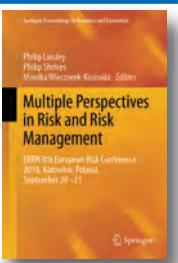


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THE BOOK

Issues of risk management and risk governance, and the differences between them, are the focus of the chapter "Directors' Duties and Risk Governance" by Sergio Beretta, in the volume edited by P. Linsley et al called "Multiple Perspectives in Risk and Risk Management" (Springer, 2019).



SERGIO BERETTA Ways to bullet-proof your company's risk management

A lack of risk culture among top management is no longer a major problem at listed firms. Yet a gap still separates awareness and practices. "Risk management is one thing, risk governance is another," says **Sergio Beretta**, Professor of Planning and Control Systems. "Risk management devises specific measures to deal with risks. At top management level, however, there must be a risk management strategy providing skills and resources to the organization. According to the most recent studies of large firms, there is still a huge gap between the awareness of risk and the work done to set up an integrated risk management system." Current corporate governance codes feature chapters on risk management that are too generic and oversimplified. Professor Beretta pinpoints two major problems. "First, there is no comprehensive definition of all contexts of risk exposure. Three different contexts must be taken into account: those in which we have a reasonable knowledge of both the chance of occurrence and the expected impact of known risks; those in which we know the existence of risks, but we do not know their impact; those in which we are not aware of the risk exposure. The so-called 'black swans' belong to the latter category. They are unexpected and yet have catastrophic effects. The guidelines do not mention these contexts or the way to deal with them." The second problem is risk appetite: the quantification of the amount of risk that a firm is willing to take. In order to spread awareness on risk appetite, it has been defined in a very generic way that is of little help in implementing it at the operational level. "We must rethink risk governance," Professor Beretta concludes. "Today, it is inadequate to deal with all the risks inherent in businesses."





EMANUELE BORGONOVO Combining risk analysis and decision theory for complex problems

On January 28, 1986, the space shuttle Challenger exploded 73 seconds after take-off at the Kennedy Space Center, Florida. B. John Garrick was one of the experts that contributed to the official accident report.

His recommendations influenced NASA's decision to adopt a more informed approach to risk analysis.

Five years before that, B. John Garrick worked with Stanley Kaplan to lay the foundations for risk analysis for nuclear power plants. Their article "On the Quantitative Definition of Risk," which appeared in the first issue of *Risk Analysis*, is a milestone in risk-informed decision making. According to Kaplan and Garrick, risk analysis consists of an answer to three questions: what can happen? How likely is that it will happen? If it does happen, what are the consequences?

In a recent article, **Emanuele Borgonovo, Veronica Cappelli, Fabio Maccheroni and Massimo Marinacci** establish a formal link between risk analysis and decision theory, that is, the study of the reasoning underlying a choice during a decision-making process involving incomplete information.

"Risk analysis helps us to understand what will happen in the future

and what we can do today to mitigate the risks. Decision analysis is mainly about modeling issues of decision making," Emanuele Borgonovo says. "Until now, they were separated. We show that for every risk analysis there is a corresponding model of decision theory. In doing so, we provide risk analysis with access to the toolbox that decision theory has developed so far. At the same time, we provide decision theory with broader scope and new stimuli."

There are many areas of applicability.

"Any decision-maker who wants to solve a complex problem, be it the renovation of a chemical plant, space missions programming or protection against cyber attacks, can use this joint methodology to mitigate risks and identify optimal risk management options," he says.



THE PAPER

Risk Analysis and Decision Theory: a Bridge, by Emanuele Borgonovo, Veronica Cappelli, Fabio Maccheroni and Massimo Marinacci.

MARIANO MAX CROCE Nobody is safe be

A global economy is exposed to the spread of turbulence from one market to another. One might think that this kind of pass-through mainly works in one direction: from bigger countries to smaller countries.

Max Mariano Croce, Riccardo Colacito, Yang Liu and Ivan Shaliastovich

found that it is usually the other way round: shocks are more easily transmitted from smaller countries to bigger countries.

Focusing on the international propagation of output volatility shocks to consumption, equity prices, and currencies, the authors compared a volatility index that takes into account the difference



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VALENTINA BOSETTI When faced with ambiguity, policy-makers act like everyone else

When faced with ambiguity, the elites who develop responses to climate change do not act rationally. Like many of us, they are ambiguity adverse. Behavioral traits and preferences of climate policymakers are the focus of a field experiment run by **Valentina Bosetti** and **Loïc Berger** during COP 21, the Paris Climate Change Conference in 2015.

Negotiators, researchers, journalists and representatives of the private sector from 52 countries were asked to choose from urns containing red and black balls. Each urn described a different type of uncertainty: the number of red and black balls was known or unknown or randomly determined.

Participants facing pairs of urns were asked to pick one of two, with a payoff for a correct bet. The ambiguity derived not only from the uncertainty about the occurrence of random events, but also from the lack of information. This is the typical situation in which climate policymakers are called upon to make decisions based on experts' conflicting evaluations. "We ran a similar experiment on university students at the Bocconi Experimental Laboratory in the Social Sciences," Valentina Bosetti says. Policymakers behaved just like

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students, proving to be consistently ambiguity adverse: they preferred situations where the probabilities were known to situations where they were unknown.

"Their preferences were not due to an irrational behavior or to the inability to perform probability computations, but to intrinsic preferences in the face of unknown probabilities. Our experiment is the first step in understanding the ambiguity aversion of social planners."



THE PAPER

Are Policymakers Ambiguity Averse? by Loïc Berger and Valentina Bosetti.

cause financial shocks spread quickly and often in unexpected directions

between actual and estimated GDP with macroeconomic data from 1971 to 2013 for 17 major industrialized countries. These were divided into G7 countries (Canada, France, Germany, Japan, Italy, United Kingdom, United States) and other G10 countries (Australia, Belgium, Denmark,

Norway, New Zealand, the Netherlands, Portugal, Spain, Sweden, Switzerland). "The average consumption pass-through is 50%, meaning that a 1% increase in output volatility in country A increases consumption volatility in country B by 0.5%," Professor Croce says. The average pass-through rises to 70% for shocks originating in small countries. How does it happen? "Trading financial derivatives helps smaller countries to increase their export-to-output ratio. The local output volatility shock spills over to the other country," he says.

Due to financial integration, the effect is even greater on stock markets: the equity volatility pass-through is 90%. "We also found that the volatility of consumption differentials and the volatility of exchange rates are disconnected," he says.



THE PAPER

Volatility Risk Pass-Through by Riccardo Colacito, Yang Liu, Mariano Max Croce, Ivan Shaliastovich.



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KERIM CAN KAVAKLI Trade can create conflict as well as prosperity

International trade is associated with peace and prosperity, but it comes with a hidden risk: it facilitates conflict under certain circumstances. **Kerim Can Kavakli**, Assistant Professor at the Department of Social and Political Sciences, came to this conclusion using a detailed commodity-level trade database from 1962 to 2000. "Political scientists have not previously used this database in this strand of research," he notes. Professor Kavakli and his co-author, J. Tyson Chatagnier, looked at every country's export portfolio for nearly 1,300 commodities. For each pair of trade partners they measured how much they compete in international markets. "We found out that countries that sell similar goods to the global market are more likely to fight with each other," he says. "In this case, the chance of engaging in some kind of conflict goes up from 10% to 25%." It happens regardless of government, political culture, balance of power, geographical proximity, economic development level, or bilateral trading ties. Moreover, Professors Kavakli and Chatagnier found that the effect is even stronger for manufactured goods than raw materials (e.g. agriculture and mining). They think that the effect is mostly driven by domestic special interest groups. These lobbies influence their nation's political elites and use foreign policy to gain an economic advantage in the international market. They reap the benefits of military competition and offload the cost on their country. Is this a cautionary tale about the dangers of globalization? "Literature has shown the pacifying effects of commerce upon pairs of states. The conventional wisdom says that the economic integration of China is making it more peaceful. Our paper shows that it may increase the risk of conflict with countries that sell similar goods to the global market."



THE PAPER

From Economic Competition to Military Combat: Export Similarity and International Conflict by Kerim Can Kavakli and J. Tyson Chatagnier

ALESSANDRO NOVA An epochal change in risk

The paradigm in business risk assessment is radically shifting from deterministic models to richer and more complex probabilistic models. "This is an epochal change," says **Alessandro Nova**, professor of Corporate Finance. In April 2019, he and Maurizio Poli presented a probabilistic assessment model for business plans at #MINE, the knowledge sharing event of SDA Bocconi School of Management. The model is based on a dataset of 60,000 companies over 6 years. It can verify the degree of reliability of the assumptions underlying a business plan and the degree of risk faced by lenders through the Monte Carlo simulation, which enables estimations of unknown parameters by using stochastic variables.



THE REPORT

Provisioning policies for non performing loans: How to best ensure a 'clean balance sheet?', by Andrea Resti

ANDREA RESTI Four key levers have helped reduce non performing loans

According to data collected by the European Banking Authority, the non-performing loans to total loans ratio in the EU has fallen since 2014 by nearly 3%. However, some countries still report high ratios. What to do? **Andrea Resti** studied the problem for the European Parliament's Economic and Monetary Affairs Committee. He has pinpointed four main levers that can be used to drive down non-performing loans (NPL). The first one is the improvement of the recovery process. "Banks often lack specialized skills and IT infrastructures," he says. "Additionally, an independent unit should operate the workout of defaulted loans." The second lever is NPL sales. Italy for example has lowered its NPL ratio from 16.3% to 9.4%. Sales are not without risks when large investment funds look for double-digit rates of return and buy at a low price. The difference between price and underlying long-term economic value causes a wealth transfer from the banking system to outside investors. The third lever is the creation of state supported bad banks that can buy NPLs and wait for better times to resell them. The fourth lever is the introduction of calendar provisioning: lenders must write down NPLs based on a pre-defined schedule. "Banks are held to a calendar of increasing devaluations that will lead over the years to total devaluation. This was decided by the European Central Bank - stealing, so to speak, the European Parliament's law-making role. A similar but more lenient rule was later approved by the European Parliament itself.

Unfortunately, the rule could act as an incentive to lenders to sell NPL at a price below their long-term economic value," he says.

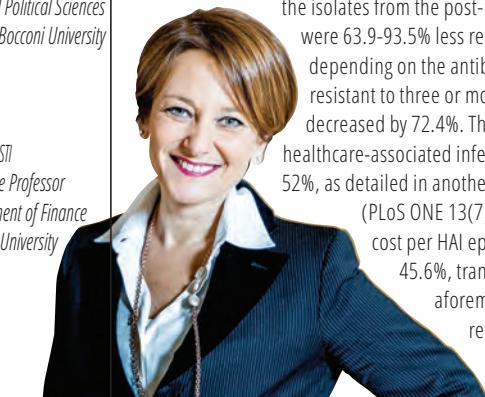


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ROSANNA TARRICONE Hospital infection risk reduced by new cleaning methods

The spread of antimicrobial resistance in hospitals can be limited by sanitation methods that remodulate the hospital microbiota, leading to lower antimicrobial consumption and costs, according to a paper published in "Infection and Drug Resistance" co-authored by two Bocconi University scholars (for the part related to costs) with University of Ferrara and colleagues from University of Udine. An experiment in five Italian hospitals using the Probiotic Cleaning Hygiene System (PCHS), a trademarked probiotic-based sanitation method, coordinated by the CIAS research centre of the University of Ferrara led to a 52% decrease in healthcare associated infections, a 60.3% reduction in associated drug consumption and a 75.4% decrease in the related costs. "The results suggest that the introduction of probiotic based sanitation methods can be considered as a useful component of infection prevention strategies," says Bocconi University's **Rosanna Tarricone**, co-author of the study. "Money savings are only a part of the story, as HAIs affect 3.2 million people." The new sanitation system was associated with a mean 83% decrease of the detected pathogens on hospital surfaces and a significant reduction (70-99.9%) of antimicrobial resistant genes. In the case of *Staphylococcus aureus*, the isolates from the post-intervention phase were 63.9-93.5% less resistant to antibiotics, depending on the antibiotic type, and those resistant to three or more antibiotics decreased by 72.4%. The number of healthcare-associated infections diminished by 52%, as detailed in another co-authored paper (PLoS ONE 13(7): e0199616), and the cost per HAI episode diminished by 45.6%, translating into the aforementioned 60.3% reduction in associated drug consumption.



THE PAPER

Impact of a probiotic-based hospital sanitation on antimicrobial resistance and HAI-associated... by Elisabetta Castelli, Carla Rognoni, Rosanna Tarricone et al.

isk modelling provides useful tool for SMEs and private equity funds to gauge business models

"Unlike existing models, it allows us to estimate not only single variables, but a perfectly congruent system of variables," Professor Nova says. "It allows us to reconstruct the relationships between the distributions of variables and the distributions of 'downstream' variables, through a cascading process.

This is an extremely effective model in long-term simulations. Being perfectly congruent, it does not just evaluate the reliability of a

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business plan, but it is able to identify critical variables." The probabilistic model is a useful tool for small and medium sized enterprises, which in Italy have a low aptitude for strategic planning, and even more so for financial investors and private equity funds interested in determining the solidity of business hypotheses. "Banks could use it too," he says.

"The new reporting standard IFRS 9 requires business plan assessment. Many banks do not have the necessary know-how to do so. This model will help them to readily verify the reliability of business plans and to determine the default probability and the analytical measure of loss in case of default."



How do commercial dynamics change when an authoritative reviewer enters the market? A study looking at Michelin Guide and Washington DC restaurant rankings provides some clues

The three stars that rule everything

by Giada Di Stefano @

Rankings impact competition across a variety of industries. Be it in the case of colleges and universities, restaurants and hotels, or books and movies, the existence of a ranking that evaluates organizations or products along a series of parameters restricts our consideration set and help us make choices more easily.

But if rankings have the power to change our behavior as customers, how do they impact the behavior of the organizations being ranked? Together with colleagues Saverio Dave Favaron and Rodolphe Durand (HEC Paris), I tackle this question in a recent working paper, where we look at how organizations modify their behavior when a new ranking, produced by a prestigious evaluator, is introduced. Our investigation started on May 31, 2016, when Michael Ellis, director of the Michelin guide, announced that the first edition of the Washington DC Michelin Guide would be published in the fall of the same year.

According to Michelin, the publication of the Guide would “put the city more firmly on the world stage of great gastronomic destinations.” Press interviews released by prominent chefs, and our own interviews with food critics and restaurant managers in the weeks that followed



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the announcement, substantially confirmed Michelin’s expectations. As the manager of a restaurant in DC commented: “It is a significant standard for dining and so for DC to be included for the first time is a big deal.” With the publication of the guide on October 13, 2016, Washington DC joined New York, San Francisco and Chicago as the fourth US city considered by Michelin for its red guide. Of all restaurants in the city, only 106 were included, with 12 of these being awarded stars. In this study, we look at how these hundred restaurants modified their behavior compared to similar DC restaurants that, based on their Yelp rating, price point, and cuisine style, could have made it into the guide, but were ultimately not included. We further compare included restaurants to similar restaurants located in a comparable city where Michelin did not enter (i.e. Boston).

Our results show that inclusion in the guide pushed restaurants to enact a series of “ceremonial” changes to their menus, aimed at signaling the newly acquired position and “prove” they belong to the elite of the industry.

In particular, restaurants increased references to sophisticated cooking techniques and

everywhere

provided longer descriptions of dishes.

Restaurants that were not well known in the local dining scene further emphasized the origin of the ingredients used in their dishes and reduced references to the size of portions. Lastly, since both the rated restaurants and their customers observed and reacted to Michelin's arrival, we examine how restaurants' reactions changed when, after the entry of Michelin, the profile of customers making evaluations or the content of evaluations themselves shifted.

We find that Michelin-included restaurants further emphasized the origin of ingredients if, in the two months following the publication of the guide, customers' reviews became more focused on food.

This last finding is particularly interesting as it sheds light on the existence of an interplay between the evaluations provided by professional critics and those made by ordinary customers. As the number of industries not affected by online feedback continues to shrink, and the volume of online reviews generated each day continues to grow, organizations find themselves in a position where it is hard to dismiss the opinions customers express online as inconsequential. ■





Does the diaspora of minds bring benefits to a country that exports human capital? A case study of India suggests it does, since a large portion of skilled people do return home

by Stefano Breschi @

Brain drain not necessarily

India is one of the biggest sources of international migration today, with over 15 million Indians residing abroad. Indians with degrees in science, technology and engineering represent a driving force of the US innovation environment, contributing to around 6% of all innovations patented in the US and 15% of startups founded in Silicon Valley. Considering other countries that are exporters of skilled human capital, including Italy, the question of whether India is benefiting from this diaspora of minds is an important one.

For a long time, the emigration of young graduates was perceived as a negative phenomenon, the so-called “brain drain.” Only recently has a more positive vision emerged, according to which intellectual migration can be a vehicle for the transfer of knowledge, technologies and skills back to the country of origin. In this sense, one of the most important channels is certainly the return of skilled personnel returning back home. The issue is so important that even the Indian Prime Minister, Narendra Modi, on a recent trip to the United States, spoke of Silicon Valley as a repository of Indian brainpower, waiting for the right time to return to the motherland.

Despite the importance of the problem, however, very little is known about the extent of the phenomenon, since official statistics do not record migrants returning to their countries of origin. For this reason, in a recent study, we looked at the population of inventors of the 179 largest IT companies listed in the



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US for the 1975-2016 period, and analyzed the curricula of 5,500 Indian inventors. For each individual, we coded three sets of variables concerning, respectively: educational attainment (Bachelor, Master, PhD) and place (India, United States) and year of graduation; career (name and place of employer and period of employment); and the age of the inventor. Finally, based on this information, every Indian inventor in a given year was classified based on three possible conditions: non-migrant, migrant to the United States, returning migrant to India. The most intense Indian migratory outflow to the US took place in the 1990s and 2000s. Moreover, about three quarters of the individuals examined had



an economic loss

expatriated to study abroad, i.e. the year of entry into the United States coincides with the beginning of a Master or PhD program, while just over a quarter of Indian inventors migrated through the labor market. The data show that return rates differ significantly depending on the reasons behind the choice to move abroad: while one third of migrants in the United States for employment reasons returned to India by 2016, the same occurred for only 22% of migrants for study reasons. In both cases, however, the phenomenon appears to be far from negligible.

A more sophisticated econometric analysis reveals a



THE PAPER

Return Migrants' Self-Selection: Evidence for Indian Inventors by Stefano Breschi, Francesco Lissoni and Ernest Miguelez.

further difference between the two types of migrants. The likelihood of returning to India decreases as a function of time spent in the United States for people that left India to seek employment, a result that suggests the increasing difficulty of transferring the skills acquired abroad back to the country of origin as time passes, while the opposite occurs for migrants who left the country to pursue their studies.

To answer the initial question of whether migration of qualified human capital to the United States constitutes a net economic loss for a country like India, the answer - although cautious and based on still exploratory analysis - seems to be negative. A non-negligible proportion of migrants returns to their country and, more importantly, the knowledge and skills acquired in the United States have value in India's labor market. The potential for knowledge, innovation, and business relations that these people bring with them is significant. This lesson should be kept in mind by a country like Italy, which in 2016 alone lost 114,000 people – an estimated 30% of whom were university graduates – thus entering the unenviable club of the 10 OECD countries having the highest emigration rate. ■



Do accountants still seem dull? Taking a new look

Stereotypes, even if they are distorted like Italy's clumsy accountant Ugo Fantozzi, are a guide to social interaction. A Bocconi study looks at how accountants are seen today

by Ariela Caglio and Mara Cameran @

Who's that? It is a question that we often ask ourselves about accountants, a profession depicted by contrasting images, opinions and perceptions. Italians remember the hapless Ugo Fantozzi, who embodied the bad luck of an average office worker. His popularity turned the accountant into comic stereotype.

A stereotype can be defined as a collection of characteristics (related to appearance, personality, skills, etc.) that are intended to describe the members of a group. The simplifications of stereotypes serve to cope with our limited ability to process complex data. Stereotypes bring order into our social environment, on the one hand by abolishing individual variety and, on the other, by making it possible to make inferences towards people about whom there is no information.

Stereotypes therefore serve as a guide for social interaction even when distorted. They are part of the collective knowledge of society.

Starting from these ideas, we wrote an article with Jane Klobas entitled "What Is an Accountant? An Investigation of Images," being published in the *European Accounting Review*.

We investigated the perceptions of different groups, including accountants themselves. The survey involved around 1,800 respondents including students in economic and non-economic disciplines, newly hired employees and people who have been working as accountants for no more than 2 years.



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The questionnaire included questions about personal and physical characteristics (for example, is an accountant shy, boring, trendy?), on the skills associated with the profession (does the job require IT skills, leadership, ability to solve problems?) and professional results (does an accountant enjoy prestige, earn a lot?). Respondents had to express their agreement or disagreement on each matter. The results highlight three distinct perceptions.

The most frequent one (36% of respondents) shows a modern professional, in step with the times and that, despite the scandals that have repeatedly affected the profession, has very high standards of professional integrity. The second (34% of the sample) is similar to the traditional view of the accountant: boring work, done by physically unattractive people, who are however reliable and capable. Finally, for 30% of respondents, accountants and their profession do not have particular positive or negative connotations, with the sole exception of professionalism, considered as high by the other groups.

The characteristics of the respondents are important: the greater the distance from the profession (like students of non-economic subjects), the less attractive the perception.

On the other hand, perception is very positive for those who, although not accountants themselves, know them personally. The source that led to the perception is also relevant: those who rely on the information they received from the media have a less positive image.

Finally, our survey shows that the perception that accountants have of themselves changes over time. New hires have a very positive image on all fronts, while those with more experience show a sort of disillusionment with regard to professionalism. It will be up to new generations to change this perception through their work, and by investing in key abilities such as organizational skills, professional diligence and technical knowledge. ■



THE PAPER

What is an Accountant? An Investigation of Images
by Ariela Caglio and Mara Cameran (Bocconi University), Jane Klobas (Murdoch University, Australia)





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In a situation of conflict, communication between the parties is of the utmost importance, especially when the causes of the conflict itself involve the absence of precise information. And in this, the figure of the mediator can play a key role.

In my recent publication in the *Journal of Political Economy* with Adam Meirowitz (University of Utah), Kristopher W. Ramsay (Princeton University) and Francesco Squintani (Warwick University), entitled “Dispute Resolution Institutions and Strategic Militarization,” we outline our surprising findings on the importance of mediators for the resolution of conflicts and for incentives to armament (nuclear or non).

It is uncertainty, in fact, that can lead to war. A strong country that is unable to evaluate the strength of the enemy can well be induced to launch an attack if it believes there is a high probability the enemy is weaker. Maybe it would

by Massimo Morelli @

Uncertainty about an enemy can often lead to war. Mediators improve communication, often reaching a compromise that avoids the outbreak of conflicts and even can avoid an arms race

International organizations should use mediation as sole tool in conflict resolution

not attack if it had clearer and more precise information.

A weak country, on the other hand, does not want to reveal itself to be weak: in this case, a direct line of communication in general is of little use.

The figure of the mediator, from Kissinger to Carter, up to Kofi Annan, serves precisely to increase the incentives to reveal, at least to the mediator, information that can help the mediator to formulate a peace proposal that constitutes a reasonable compromise. The most surprising result of our study, however, is that the presence of institutional mediators can even discourage

countries from pursuing the arms race. This can happen if mediation is perceived as the main form of communication in the event of conflict. Mediation has taken hold above all as an alternative to arbitration in the judicial sector. But this new information on the disincentive effect of mediation on arms buildup should be a decisive stimulus to make the United Nations orient itself toward this kind of intervention. In an article not yet published with the same authors we show that, unlike mediation, most other common intervention policies lead instead to exacerbating conflicts. For example, if the United Nations were to follow a constant policy of intervention alongside or in support of minority rebel groups, such groups would have much more *ex ante* incentive to start conflicts. If then the expected help is late in coming, the conflict that has already begun can lead to great bloodshed. A policy of almost exclusive mediation by international organizations is therefore preferable. ■



THE PAPER

Dispute Resolution Institutions and Strategic Militarization by Adam Meiowitz, Massimo Morelli, Kristopher W. Ramsay, Francesco Squintani.



ould
conflict



EU

What would be the economic impact of an EU break-up? Average pro-capita incomes would fall 6.5%, according to estimates by Gianmarco Ottaviano. But the advantages of the European Union are more than "just" economic. We asked twenty professors and alumni for their views about what makes this kaleidoscope unique and how to make it even better

by Gianmarco Ottaviano @

Stories by Andrea Celauro,

Davide Ripamonti,

Claudio Todesco

and Fabio Todesco

Twenty colors for EUROPE



The European Union is the child of war and mother of peace. It is the product of a revolutionary vision of international relations which has no precedent in world history: following centuries of conflict and war, faced with the ruins of World War II and later of Communist regimes, a growing number of democracies spontaneously decided to break with the past. They put the Continent's peace, unity and prosperity ahead of national egotism, by hampering the expansionist aims of stronger countries and relieving the reflexive distrust felt by smaller ones. The cornerstone of the European project is the idea that peace and prosperity go hand in hand with the removal of trade barriers between countries: peace generates prosperity and prosperity maintains peace.

But is it true that trade defuses conflict? In general, the nature of the relationship between openness in international trade and military confrontation is not so clear. The reason is the existence of two countervailing effects. On the one hand, the probability of military conflict is low among countries that trade a lot among themselves for a simple question of mutual interdependence. On the other hand, countries that are very open to international trade typically have many trading partners and this reduces the negative economic consequences of waging war on an individual trading partner. In other words, "commercial monogamy" discourages bilateral conflict, while "commercial polygamy" makes it less penalizing. However, the former generates fewer benefits from trade than the latter.

For this reason the European Union has institutionalized "commercial polygamy" through a framework in which all member countries are ready to collectively sanction the nationalist deviations of any member country.

Although in general it is difficult to conclude that international trade acts as an antidote to war, in the specific case of Europe it is undeniable that the creation of a free trade area between the countries of the Old World has coincided with a prolonged period of peace and unprecedented prosperity.

Despite this, a quarter of a century after the creation of the Single Market in 1993, we are living in a historical moment when - given the rise of nationalist forces which favor a return to national sovereignty - the fragmentation of European markets along national boundaries is no longer a zero-probability scenario.

What would be the economic damage from a splintering of the EU? Answering this question is not easy, because it depends on the specific disintegration scenario and the type of effects that one seeks to highlight: static (on production efficiency) or dynamic (on economic growth). Since the dynamic effects are much stronger but also harder to measure, the economic consequences of non-Europe would best be limited to the static effects. This approach enables us to at least calculate a minimum for the costs resulting from a fragmentation of the European Common Market.

This exercise requires the definition of plausible Common



THE BOOK

Geografia economica dell'Europa sovranista

by Gianmarco Ottaviano (Laterza, 2019). What are the costs and benefits of being an EU member? What economic impact would leaving the EU have, and who would suffer most? The author responds to these and other questions in this snapshot of Europe.



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Achille
and Giulia Boroli
Chair in European Studies
The Chair was
inaugurated on May 6,

2019 with a Lectio
Inauguralis in which
Gianmarco Ottaviano
discussed Europe's
economic geography of
nationalism. Karen Helen
Ulltveit-Moe (University of
Oslo) looked at how the
Norwegian model
functions as an
alternative to EU
membership.

Market breakdown scenarios and the use of mathematical models to simulate the economic consequences of the various scenarios identified.

The most plausible scenario in the event of a breakdown of the single market is a return to the situation of the early 1980s, in which trade between the member countries of the European Economic Community (EEC) was regulated by a regional free trade agreement. From this point of view, the difference between the EEC (which appeared in embryonic form in 1957) and the EU (started in 1993) is fundamental when it comes to economic integration. Broadly speaking, a free trade agreement eliminates all duties and quantitative restrictions which would otherwise hinder international trade in goods and services between member countries.

The EU adds many other features to being simply a free-trade area. Indeed, the EU is also a customs union, that is, a union where member countries, in addition to removing obstacles to the internal movement of goods and services, also commit themselves to a single trade policy towards the rest of the world: not only internal duties are abolished, but external duties are the same for everyone. Therefore, no EU country can conduct independent trade negotiations with non-EU countries.

Furthermore, within the EU Single Market, free circulation concerns not only goods and services, but also flows of capital and people. These fourfold free movements translate into the four pillars of the Single Market that all member states have pledged to respect under penalty of exclusion from the Union.

A return to an EEC past would mean shifting from a unified free market to a free regional trade area. The resulting reduction in per capita income for member countries would be significant, on average about -6.5% across the EU.

Before deciding to give in to sovereign temptations and leave the European Union, countries should first ask themselves what problems need to be solved and whether an exit from the EU would help solve them. Likewise, countries should also consider the advantages, monetary and non-monetary, that EU membership ensures in a world where the economic, social, cultural and military weight of the great powers of the Old World are declining. Britain's travails with Brexit are a striking example of what it means to decide to leave the European Union without pondering these questions first. ■



CARLO ALTONONTE Explaining the protest vote with a theory of collective emotions

There is no consensus on the origin of the protest vote and the rise of Europe's far right. Some scholars see the cause in financial crisis and wealth inequalities, others point to trends such as immigration and the globalization of markets. In "Collective Emotions and Protest Vote," **Carlo Altomonte, Gloria Gennaro and Francesco Passarelli** build a behavioral theory of protest votes. The key element for them is the increase of relative deprivation, a concept taken from social psychology. It measures the difference between an individual's



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income and the income of richer individuals. "The financial crisis and the globalization of markets may not have changed my income level, but seeing my neighbor getting richer and richer may increase my relative deprivation. This fuels my desire to vote for anti-establishment parties that promise change," Carlo Altomonte says.

Parties calling for wealth redistribution are not rewarded, though. The increase in relative deprivation alone cannot explain the phenomenon. According to the Intergroup Emotions Theory, resentment is amplified if the individual identifies with a community experiencing the same feeling of relative deprivation. The authors tested their theory using data on 2010 and 2015 UK national elections, when UKIP support rose from 3.1% to 12.6%. The vote share for the UK Independence Party was significantly larger in districts where the identification with the community was higher and the relative deprivation with respect to richer individuals had worsened.

"Protest voting is caused by the desire to take revenge against traditional parties," he says. "It has a cost, because it can lead to the election of politicians that cannot solve problems, or to vote for parties that have a slim chance of winning a seat in parliament. And yet, the psychological benefit of having acted to protect your community is greater than this cost."



THE PAPER

Collective Emotions and Protest Vote by Carlo Altomonte (Bocconi), Gloria Gennaro (Bocconi) and Francesco Passarelli (University of Turin)

MARIO NAVA My life in Brussels: Never a dull day in 25 years of service

My high school final examination, in June 1985, coincided with the European Council being held at the Sforza Castle in Milano, not far from my school. That Council laid the foundations for the Single Market, which was enacted by the Maastricht Treaty in 1992, and became an economic and political reality in the following two decades.

While I was preparing for my diploma examination, I devoured all the news I could find about what was happening inside the Castle. It was very clear to me that Bocconi, where I was to enroll in September, would help me move from the subtleties of Latin and Greek (wonderful schools of life) to the complexities of European policymaking. The dream became reality during my years at Bocconi and during my PhD, when I decided that applying for a EU competitive exam to join Europe's institutions was the best way to give back to society what I had received in my undergraduate and graduate studies.

Twenty-five years have passed since I started working in Brussels on September 1st, 1994. I have seen Europe go from 12 to 28 states (and now, perhaps, decrease to 27), I have seen 5 presidents of the Commission and countless commissioners take office, and I have changed 9 jobs, while remaining in the field of economics and finance, where I was

given growing levels of responsibility. But above all I saw Europe, our home, change and improve. Calling, traveling, studying, working, buying, investing, paying are just a subset of the everyday activities that that were almost exclusively national in

1994 and have now become European, thus creating incredible opportunities for everyone, especially for young people. The European Union has ensured the longest period of peace and the highest level of prosperity ever achieved by this Continent, guaranteeing its

citizens a lifestyle (limited social inequality, good work-life balance, healthy eating habits, care for the environment etc.) envied across the world. This is not something that can be taken for granted. It is an outstanding result that must be defended and nurtured every day.

Working for European institutions is incredibly exciting. In 25 years, never a dull day! Colleagues offer a wealth of cultures and contacts unimaginable in any national context, which allows for open and constructive discussion. There is a common feeling that pervades everyone's behavior and actions. The paradox is precisely this, that cultural diversity drives union of intent, because everybody is united in the pursuit of the public interest. High skills and professionalism make the working environment competitive but in a healthy way.

I have always believed I was lucky to work in EU institutions, but also as a duty towards the rest of the population and towards our children and grandchildren. To work for the EU, one needs to put their hearts into solving problems. Long live and thank you Europe! ■

GUIDO FARA It all started with a summer internship...

It was our university, in 2012, that gave me the opportunity to learn about the world of European institutions through a summer internship in Brussels at the Directorate General for Competition. From that experience, I quickly realized that the job did not end with our daily institutional tasks, but

rather was a tangible example of collaboration and common commitment to solve challenges too big for individual Member States.

In my current role as performance auditor at the European Court of Auditors, I ask myself every day, alongside committed colleagues from all over the Union, about

how to make EU action more effective and create a positive impact on citizens and Member States. I am well aware of the need to improve many aspects, but also that I am contributing to the key role that the Union continues to play in developing a more prosperous, cohesive and conflict-free Europe. ■



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FRANCO AMATORI

How European capitalism is one of a kind

The sociologist and anthropologist Karl Polanyi believed that society wants to protect itself from the Darwinian forces of competition. His words come to mind thinking about the theories on European capitalism developed recently by **Franco Amatori**. According to the Professor of Economic History at Bocconi, European capitalism – taking into account the most significant countries France, Germany, Great Britain, Italy, Spain and Sweden – had four pillars from the mid-19th Century to the mid-20th Century.

The first one was the contractual cooperation between companies to control the market. In the US there was strong antitrust legislation to protect the country from "monster" firms, but it encouraged

concentration in the end. This is the American paradox. Companies that were not allowed to set prices with rivals tried to beat them through competition. As long as they could provide good quality and reasonable prices, they were safe from criticism from the opponents of concentration. The second pillar of European capitalism was the hegemony of family business, whereas in the US firms were led by managers

and viewed as commodities that could be bought or sold.

The third pillar was the active presence of the State in the economy. And the fourth was a politicized workers' movement.

"In Asia (China and Vietnam) the goal of the political action of workers was national independence," he says. "In the US good salaries and individual wealth expectations (the frontier myth) made workers reluctant to engage in militant actions. In Europe, the workers' movement focused on the idea of using power to change society, whether in reformist or radical mode."

In the second half of the 20th Century, these four pillars were submerged by three waves: the process of Americanization; the constitution of the European Union based on "American" rules; globalization.

After the crisis of 2008 the original characteristics re-emerged: the State was once again deemed strategic; the number of antitrust cases increased dramatically; family businesses dealt more effectively with uncertainty than non-family firms; there was a resurgence of workers' movements.

"The four pillars make European capitalism one of a kind," he says. "They are not ephemeral. Policymakers should be aware of them."



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ANDREA ENRIA
Chair of the European
Central Bank Supervisory
Board

ANDREA ENRIA Our duty is to make the European dream last over time

Working for Europe is exciting in many ways: you find yourself committed to the frontier of the most important debates in public policy, in any possible field; it allows you to work with high-quality peers from all EU countries, providing a formidable contamination of different cultures; actual and visible results are obtained despite the often slow and difficult decision-making process. Active participation in the European project makes the job exciting.

Jean Monnet said that nothing is possible without men (and women, I would add), nothing is lasting without institutions. Great men and women have worked to achieve the dream of a united Europe. Today more than ever we have the duty to ensure that this dream will last over time. ■

LEONARDO BORLINI

Linking human rights and trade

"Progress is an ideal notion, whereas development is a pragmatic fact. Yet true progress is inconceivable unless the economic foundations needed to achieve it are created," Pier Paolo Pasolini wrote in the essay "Scritti corsari."

This quotation opens a paper by **Leonardo Borlini** on the European Union's promotion of human rights through preferential trade agreements (PTAs). "The EU is the perfect laboratory for understanding the tension between development and progress," he says. In his paper "The EU's Promotion of Human Rights and Sustainable Development through PTAs as a Tool to Influence Business Regulation in Third Countries," Professor Borlini discusses the steps that have marked the

EU's action in using trade agreements and development cooperation to promote the respect of human rights, the environment and labour standards.

"The Treaty of Lisbon is a milestone," he says. "The introduction of Articles 3(5) and 21 TEU, establishes the protection and promotion of human rights as a foreign policy directive."

However, the inclusion of human rights clauses in bilateral trade agreements dates back to the mid-1990s. Those clauses define the reciprocal obligations of the parties, so that human rights violations of a certain scale by one of them can justify suspension or other counter-measures.

Over time, sustainable development obligations and corporate social responsibility clauses have been incorporated to the agreements. This latest initiative makes it all the more evident that the EU wants to influence business activities beyond its borders by promoting market regulation in other countries.

"Some claim that projecting the EU model worldwide complies with an ideal of sustainable global development, while others believe that the failure to export its standards would penalize European firms," Borlini notes.



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THE PAPER

The EU's Promotion of Human Rights and Sustainable Development through PTAs As a Tool to Influence Business Regulation in Third Countries by Leonardo Borlini

THE PAPER

The next SSM term: Supervisory challenges ahead
by Andrea Resti, Associate Professor at Department of Finance at Bocconi University

BRUNELLA BRUNO, ELENA CARLETTI, AND Identifying some new challenges for incom

When the European Central Bank Single Supervisory Mechanism chief Danièle Nouy's term was about to expire, the European Parliament's Economic and Monetary Affairs Committee asked a group of academics to look back at the first Single Supervisory Mechanism (SSM) term and to identify the challenges facing its new head, Italy's Andrea Enria, in four reports. The authors of two of these four reports are Bocconi professors: **Andrea Resti** and **Elena Carletti** with **Brunella Bruno**.

Professor Resti focuses on three challenges and three possible improvements. Low profitability is probably the worst danger facing the banking sector. Andrea Resti proposes alleviating the burden of compliance costs and overlapping requirements. "Banks that protect themselves with heavy armor are safer, but they move like turtles," he observed.

Shadow banking is another source of concern. It accounts for 40% of the assets held by the EU financial system and it is deeply interconnected with banks: an implosion would have dramatic repercussions.

"The key issue, though, is poor governance," he points out. "Misconduct by managers is not rare. Their power is not counterbalanced by board members equipped with an adequate technical background."

Professor Resti suggests simplifying the regulatory framework and sanctions, and giving the head of the SSM control of budgets and staffing. The head of the SSM currently relies heavily on staff supplied by national authorities. This negatively affects the effectiveness of supervisory action.



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THE PAPER

The next SSM term: Supervisory challenges ahead
by Brunella Bruno and Elena Carletti, respectively Researcher and Professor at the Department of Finance at Bocconi University

REA RESTI ing Single Supervisory Mechanism chief

To overcome this constraint, the ECB has made significant use of external consultants that raise concerns in terms of conflict of interest. "Accountability is the third challenge for the SSM," he says. "The ECB has been criticized for not making its processes clear enough and supervisory processes uniformly implemented. Tasks, methods and decisions must be transparent."

Elena Carletti and Brunella Bruno agree on the latter recommendation. If professor Resti sees the glass half empty in the first part of his report, they see it half full. In the first term, the SSM has addressed capital inadequacy; it has rebuilt confidence in regulatory capital ratios; has addressed the non performing loans issue; made stress tests an important component of the supervisory assessment; and has enhanced financial integration. "This is the area in which least has been done," Professors Carletti and Bruno say. "We recommend weakening the bank-sovereign debt nexus in order to avoid the so-called diabolic loop. One way of doing this is to introduce safe assets and a European deposit guarantee scheme.

It would be beneficial in encouraging cross-border consolidation." Other challenges for the head of the SSM highlighted by Professors Carletti and Bruno are the strengthening of transparency and accountability, and the reduction of costs of banking supervision. "An over-demanding supervision may lead banks to try to circumvent rules and to become overly risk-averse, thus dampening credit supply," they caution.



GUIDO BICHISAO Four concepts to sum up a single goal: a better future

After a long experience in finance, institutional affairs and banking at the EIB, I believe that working for Europe in one of its institutions can be summed up by four concepts. Decision by consensus: the decision-making system is based on the principle of checks and balances. The internal consultation at the different institutions that form Europe, as well as between them, allows them to weigh all sides of an issue before reaching a decision, even if this requires the search for compromise. International breadth: in addition to working and interacting in multilingual and multicultural environments, a European institution interacts with a multitude of private and public actors. Building Europe: the international scope empowers a serious search for adequate solutions to social, economic, development, and innovation problems which require the understanding of all relevant aspects contributing to the building of a more effective Union. Economic diplomacy: Europe often presents itself as divided in international diplomacy. European institutions work to give more cohesion to Europe's international profile, by balancing the promotion of our companies exports with the

need to reduce global imbalances that are sources of social and political tension, and promoting European values and standards. Working for Europe means imagining the future and helping to improve it, while knowing that "the future means losing what you have now and see something come into being." (Haruki Murakami) ■

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ITALO COLANTONE Promises of economic nationalists are now clashing with reality

The crisis of inclusive liberalism and the surge of right-wing parties in Europe date back to the 1990s, when economic change drove the realignment of social groups along new dividing lines. This is the central thesis of **Italo Colantone's** and **Piero Stanig's** paper "Alle radici del nazionalismo" that was featured in the January-March 2019 issue of *Economia & Management*, the magazine of SDA Bocconi School of Management.

The shocks of globalization and automation played a key role in the rise of radical-right parties in Western Europe. "These changes generated aggregate gains, but penalized medium-skilled and less-educated workers," Professor Colantone says. "The losers of globalization were not adequately compensated. Governments became increasingly ineffective at delivering redistributive policies also due to the



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liberalization of capital flows that reduced state revenues. The losers of globalization no longer felt represented by traditional mainstream parties and turned to the anti-globalization camp. This is a phenomenon mainly triggered by socio-economic concerns, that then are manifested in cultural changes as well."

As a result, the economic nationalist political platform emerged that is a mix of isolationism, nationalist narrative and economic conservatism. The future, however, is not written in stone.

"The promises of economic nationalists are clashing with reality, and maybe mainstream parties will be able to restructure and become credible again by effectively addressing the inequalities generated by economic shocks," he says.



THE PAPER

Alle radici del nazionalismo by Italo Colantone and Piero Stanig, both Associate Professors at the Department of Social and Political Sciences at Bocconi

FRANCESCO DECAROLIS Making supplier reputation part of public procurement process

Public procurement is an important part of the European economy, accounting for 15% of its GDP. The directive 2014/24/EU introduced limits to bidders with records of past anticompetitive activity. It also states that public contracts can be awarded on the basis of many factors, not only price. The directive opened the door to the introduction of reputational incentives to improve supplier performance.

In the working paper "Past Performance and Procurement Outcomes," Francesco Decarolis, Riccardo Pacini and Giancarlo Spagnolo studied the outcome of an experiment run by a large multi-utility firm in Central Italy. The introduction of a reputation mechanism for suppliers who maintain the power grid had a significant impact on their performance.

"Over the course of a year, after the announcement of the switch from price-only to price-and-rating auctions, with a scoring rule

FRANCESCO DECAROLIS
Avvocato Giovanni Agnelli
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assigning 25% to the reputation index, overall compliance improved from 25% to 80%," Professor Decarolis says. Prices lowered right after the announcement when suppliers competed to win contracts to get scored. After having established a good reputation, though, the price increased by 9%. "According to our cost-benefit analysis, the price increase appears rather small when compared to the improvement in performance."

Yet the EU regards reputational incentives with suspicion, whereas in the US past performance has played a role in public procurement since the mid-1990s. "European lawmakers fear favoritism and corruption, and they worry that these mechanisms may prevent the creation of a single market, by favoring already established local suppliers who have won in previous biddings."



THE PAPER

Past Performance and Procurement Outcomes by Francesco Decarolis (Bocconi), Giancarlo Spagnolo (Stockholm School of Economics) and Riccardo Pacini (State-Owned Property Agency)

PAOLA MARIANI Post-Brexit UK-EU trade relations a delicate compromise

Enlargement is the name of the process whereby new countries join the European Union. It was thought to be irreversible. Then came Brexit. **Paola Mariani** devoted her most recent research activity to the United Kingdom's withdrawal from the Union. In her book "Lasciare l'Unione Europea: riflessioni giuridiche sul recesso nei giorni di Brexit" (Egea 2018), she analyzes the exit through the lens of international law and EU law, offering a systematic and original interpretation of Article 50 of the Treaty on European Union. In the first case of interpretation of this same article by the Court of Justice (Andy Wightman MSP and others v Secretary of State for Exiting the EU), the Advocate General Campos Sánchez-Bordona quoted, among other international academic contributions, the work of professor Mariani in support of the thesis to allow unilateral revocation of the notification of the intention to withdraw.

In her article "Brexit e il sistema di soluzione delle controversie nell'accordo di recesso dall'Unione europea: quale ruolo per la Corte di giustizia?", Professor Mariani focuses on the role of the Court of Justice in resolving disputes between the UK and the EU during the transitional period that will last until 31 December 2020.

"British Prime Minister Theresa May's government put down some Brexit red lines including the end of the jurisdiction of the European Court of Justice," she says. "The greater the use of EU rules in relations with the UK, the less the possibility of excluding the Court from the dispute settlement system."

In "The Framework of Future Relations: Trade," Paola Mariani and Giorgio Sacerdoti explore the future of EU-UK trade relations. The future of trade relation between EU and UK has not been written. It will be a compromise between the aspirations of the UK to conduct an independent trade policy and the aspirations of the EU to preserve the unity of its market.



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ANGELA PETTINICCHIO Foreign-born CEOs keener on cross-border M&As

In the European Union, companies with foreign CEOs are more likely to engage in cross-border mergers. Why does this happen? And do these transactions generate more, or less profits? **Antonio Marra** and **Angela Pettinicchio** of Bocconi University, with Ron Shalev (Rotman School of Management, University of Toronto), raise these questions in "Home Sweet Home: CEOs Buying Firms in their Home Countries - Information Asymmetry or Home Bias."

The authors focus on EU firms to determine whether the country in which the CEO was born and raised drives the preference for domestic or cross-border mergers.

"Literature on Mergers & Acquisitions shows that these transactions are not always efficient. Sometimes they are disastrous," Angela Pettinicchio says. According to data, non-domestically born CEOs are 87% more likely to engage in cross-border acquisitions. The relationship is driven by the CEOs' preference to purchase in their own country of birth. There are two alternative explanations: the acquiring CEO may have a home bias (a non-rational bent towards the country of birth); or, the preference could stem from a superior knowledge of that country that allows him or her to mitigate information asymmetries.

"The latter seems to be the correct explanation," she says. "Acquisitions led by CEOs from the country of the target firm generate abnormal positive return in the following days compared to acquisitions led by domestically born CEOs." The performance is better when the acquisition is led by recently hired non-domestically born CEOs. They are more equipped to mitigate information asymmetries because they have more up-to-date information and more recent connections in their country of birth. This ability is even more significant when the CEO is born and raised in a country where legal enforcement and disclosure quality are weak.



THE PAPER

The Framework of Future Relations: Trade by Paola Mariani and Giorgio Sacerdoti, respectively Associate Professor and Senior Professor at the Department of Legal Studies at Bocconi

MARIA BIANCHI Working at the Commission taught me to overcome borders

Career start, personal growth, and overcoming borders: this is what working at the European Commission means to me. A career start, because I began at the European Commission, in a lively international environment at the heart of Europe. Personal growth because, in less than two years, I have acquired a profound knowledge of how EU decisions are taken and how the policy positions of the Commission are prepared. I had the opportunity to collaborate with colleagues and "national experts" from all member states. I am constantly challenged by different points of view and the need to reconcile different opinions to arrive at a final position. Overcoming national

MARIA BIANCHI

Economic Analyst at the European Commission, Directorate-General for Economic and Financial Affairs (DG ECFIN)

boundaries because living abroad, learning a new language, traveling freely around European cities allowed me to consider Europe my true home, and European values my own personal principles.

I feel privileged and honored to be part of the European project, not only for the opportunities for personal and professional growth it offers, but above all because I am aware that the ultimate goal of my work is nothing other than working on behalf of the interests and welfare of European citizens. ■



ORESTE POLLICINO Europe should not adopt US approach to fake news

"Metaphors in Law should be handled with care," **Oreste Pollicino** warns. He is referring to applying the metaphor of the free marketplace of ideas to the information sector in Europe, following the example of the United States. In Europe, though, the legal paradigm and the set of values are rather different. "We should be even more cautious when dealing with online information because of the spread of fake news and because of the prevalence of monopolies and oligopolies," he says. As a professor of Information Technology law, Oreste Pollicino was part of the high-level group of experts set up by the European Commission to advise on policy initiatives to counter fake news. In "Truth and Deception Across the Atlantic: A Roadmap of Disinformation in the US and Europe," forthcoming in the Italian Journal of Public Law, professor Pollicino and Elettra Bietti propose discarding the term "fake news" and replacing it with "disinformation." This is defined by three factors: the content's factual truth; the intent associated with the content's generation and sharing; and the harm caused in the public sphere.

"The First Amendment to the United States Constitution addresses the active dimension of speech and protects the marketplace of ideas, thus shielding the press and other speakers from liability for the spread of disinformation. Article 10 of the European Convention on Human Rights addresses the passive dimension of speech and highlights the social dimension of disinformation since it affects the right to be informed in a truthful or at least verifiable manner."

The role of digital platforms like YouTube and Facebook is critical. The European Commission looked for ways to involve them without censoring them. In 2018, it let them draft codes of conduct. After one year, if self regulation fails, a stricter regulation may follow.



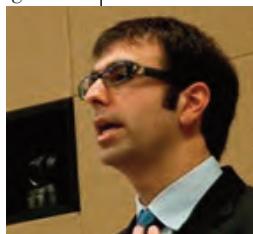
THE PAPER

Fake News, Internet and Metaphors (to be handled carefully) by Oreste Pollicino, Full Professor at the Department of Legal Studies at Bocconi

ALESSANDRO MALCHIODI Teamwork? I learned it during group projects at the Velodrome

It is a great honor, and the culmination of a calling that I nurtured at Bocconi. If I close my eyes, I find similarities with academic life. First and foremost, the need to reconcile different points of view, which we learned through teamwork we did on projects at the Velodrome. Then, there is the dialogue between theory and policy. Theory brings back memories of the almost reverential fear we felt when we visited our professors' offices; public policy cannot be learned in textbooks, but must start from economic analysis to be effective.

ALESSANDRO MALCHIODI
Policy Officer, European Commission



PAOLA PROFETA Why EU must move to majority voting on taxation rules

Pierre Moscovici, the former EU Commissioner for Economic and Financial Affairs, Taxation, and Customs, proposed changing the EU decision rules on taxation issues. He suggested moving from the current unanimity system toward a Qualified Majority Voting (QMV) System. His proposal opened a large debate: on the one side, unanimity guarantees national sovereignty on taxation issues, which is considered a top priority for many EU countries; on the other, changing the unanimity rule is a necessary starting point if we want more integration in Europe on tax policies.

Paola Profeta (Department of Social and Political Sciences) discussed the proposal with Mr. Moscovici, during a Bruegel workshop.

"Unanimity is difficult," says Profeta. We know from public choice theory how difficult – or impossible – it is to reach unanimity on a grouping of mixed options. EU countries are heterogeneous in several ways which affect not only tax decisions but more generally their views on the role and size of government -- national and supranational -- such as the level of economic development, political institutions, and a country's openness and specialization. Persistent differences are linked to countries' different political histories. Countries also differ according to their favorite tax instrument at the domestic level:

corporate income tax is a small share of budget in some countries, large in others. Thus, moving to qualified majority voting makes it easier to reach an agreement and enlarges the field for potential actions.

Moreover, qualified majority voting is already used in more than 80% of legislative procedures! Most experts agree that greater tax coordination is desirable. Tax coordination is needed to avoid tax base erosion and profit shifting (BEPS) in business, to fight against tax evasion, and to combat tax abuse. It is also needed to introduce a tax environment at the EU level and a Digital tax. The case of Apple was decided by EU antitrust regulators as a state aid procedure, because "Ireland granted illegal tax benefits to Apple." With an integrated tax policy there could be tools to prevent these sorts of things from reoccurring.



CHIARA LANDOLFO Making young people aware how crucial it is to vote in EU elections

As a graduate with a degree in Management of Public Administrations and International Agencies, working for the European Union was one of the natural professional destinations after my studies at Bocconi. I moved to Brussels in 2010, thanks to the Schuman internship program of the European Parliament. I started my professional experience at the administrative offices of Parliament's Communication Department, where I still work overseeing internal control and resource management. Working for Europe for me means contributing to efficient administration, by putting the skills learned at Bocconi at the service of EU institutions

CHIARA LANDOLFO
Advisor to the Director,
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in terms of process effectiveness, orientation to results, and accountability. It also means representing my country beyond national borders in a context of quality and excellence, by applying rigorous methods of analysis and performance management to communicate the results achieved by the European Parliament. And finally, having direct contact with European citizens, in particular with young people, in order to inform them and make them aware of how crucial it is to exercise their right to vote in EU elections. ■



THE PAPER

The IT Revolution and Southern Europe's Two Lost Decades by Fabiano Schivardi (Luiss) and Tom Schmitz (Assistant Professor at Bocconi)

GRAZIELLA ROMEO Legal rights, too, can be a key EU integration driver

Recognition of fundamental rights can be an incentive for the European integration process.

"Pessimism about integration stems from the belief that it is not possible to create a European 'state' because of member states' diversity," says **Graziella Romeo**, who addressed the issue in "Building Integration Through the Bill of Rights? The EU at the Mirror." "This theory assumes that elsewhere the process has been fluid and natural," she continues. "But even the United States -- a successful federal experience -- has had a troubled history in integrating the cultures of states that wanted to preserve their own identity and culture."

In the US, the recognition of fundamental rights in a process that moves from the center (the federation) to the edge (the states), played a decisive role in building national identity. Something similar can happen in Europe.

"Political considerations cannot be overcome by legal integration," Romeo acknowledges. "But it is also true that some rights, for instance the freedom to contract marriage or personal data protection, may turn into powerful identity-creation tools if their exercise is ensured by central institutions." This process is enabled by two dynamics: federalization -- that is, the process of moving towards political integration -- and constitutionalization, or the transformation whereby constitutional norms end up permeating the legal system and therefore touch both the relationship between citizen and state and between citizens. "The EU has made significant progress in this transformation," she says. "Integration is still possible."

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TOM SCHMITZ IT not the key to solve Southern Europe's productivity gap

If you think that Southern European countries should close their productivity gap by subsidizing IT adoption, then you'd better think again. It actually may lower productivity even further. "It would encourage unproductive firms to adopt IT systems that are too sophisticated," he says. "It would be a waste of resources. Low IT adoption is a symptom, not the problem."

Tom Schmitz is Assistant Professor of Economics at Bocconi University. In "The IT Revolution and Southern Europe's Two Lost Decades," co-

authored with Fabiano Schivardi, they looked into why Italy, Spain and Portugal have lower productivity growth compared to Germany and the U.S. "Literature has documented the influence of management practices and technology adoption at the firm level," he explains. "We adopted a more macroeconomic approach." The authors used a subset of the World Management Survey on medium-sized manufacturing firms from 1995-2008. More than one third of the North-South productivity gap is caused by inefficient management practices that limits gains from the IT revolution. They identified three reasons why.

"The most obvious one is the direct effect of inefficient management practices that lowers firms' productivity gains from IT," he says. "The second one is more indirect: IT increases the importance of management practices, making its inefficiencies even more prominent." Lastly, IT-driven wage increases in Northern European countries create incentives for high-skilled emigration from the South. A few suggestions for policymakers: promote knowledge transfers by multinational firms from countries with superior management practices. A judicial system that efficiently resolves conflicts between family business owners and non-family executives would make it easier for firms to delegate more.





Women are underrepresented in politics in nearly every country. Studies show they are less corrupt and more collaborative than their male peers. The tools to overcome the gender gap are well known, but women still face obstacles to get elected

Women are still underrepresented

by Alessandra Casarico @

Gender inequality is greater in the political sphere than in the economic sphere. According to the Global Gender Gap Index (World Economic Forum, 2018), based on the 150 countries considered in this annual report, only 22% of the gap between women and men was bridged in the political sphere, compared to 59% of the gap filled in terms of economic participation (where 100% is perfect gender equality). In Europe, an average of 30% of MPs are women, as are 29.5% of government ministers. The European Parliament, where women MPs are about 36% of the total, has a greater female representation than any individual national parliament (except for Belgium, Denmark, Portugal, Lithuania, Bulgaria, Estonia, and Cyprus). Several reasons explain the low female presence in political institutions, mostly regarding the obstacles that women must overcome in the selection process that leads to elective office. First of all, women themselves may not be available for or interested in political competition: they have no role models, for example. Secondly, they suffer more than men from the lack of time available to devote themselves to political activity since they are busier than men with unpaid household work. Lastly, they might think they have lower prospects for success, which has a negative impact on their willingness to run. However, parties also play an important role: they often discriminate against women in their lists or nominate them only in constituencies where the chances of winning are lower. Finally, if voters can only express one preference, they can pick either a male or a female candidate, thus determining the gender composition of those elected. Women are about 50% of the electorate and fair representation would require they filled half of decision-making posts, which is clearly not the case. But it's not just a matter of numbers. There are studies



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showing that women in politics are better at working in teams and less prone to corruption. For developing countries, there is empirical evidence that women in politics act as role models for girls, who have an incentive to invest more in themselves to gain space in the economy and in society. More controversial is the empirical evidence concerning the impact of women on public policy: while there are studies that show that, in certain contexts, women allocate more resources to education, environment and health, in others female representation does not translate into the effective representation of the interests of women. The question about women in politics is not only their number, but also how they can make a difference in political decision-making. Still, increasing their number is a necessary condition. But how do we get there? Setting gender quotas is one of the most frequent tools for achieving that objective: they exist in many European countries; in some cases, they are voluntarily set by political parties, while in others they are required by law. They can be both local and national. Although widespread and time-tested, quotas still cause controversy in policy circles. What do we know about the effectiveness of quotas? Research tells us that in Italy, for example, where quotas were in use for a brief period in the 1990s and have been in place again since 2013 for municipal elections, they have increased the number of women in city councils, rejuvenated the political class, increased voters' participation, and, above all, improved the quality of elected politicians. In a recent work, we showed how the double gender preference – another tool being used to increase women's representation in politics – when combined with gender quotas, increases the presence of women in municipal councils, thanks to the greater number of preference votes going to women candidates. It also has spillover effects on composition of regional councils, although they are not bound by law to respect gender diversity in the same way as mandated by the electoral law for municipal elections. The tools to increase the presence of women in politics exist, and there are good reasons for using them. If only the political will were there to achieve the gender transition in contemporary politics. ■



THE PAPER

Let the Voters Choose Women by Audinga Baltrunaite (Bank of Italy), Alessandra Casarico and Paola Profeta (Bocconi), Giulia Savio (Università della Svizzera italiana)

ent in politics. Why?



FAMILY BUSINESS

Married couples make a win



ning team as managers too

Family-owned firms managed by a husband-and-wife team achieved better performance than all other combinations, according to a 12-year study by Bocconi

by Mario Amore @

Married couples make a formidable team when appointed to the top of a family business. An analysis of Italian family firms over 12 years, conducted with Danny Miller, Isabelle Le Breton-Miller and Guido Corbetta, shows that firms led by married couples (as co-CEOs or CEO and Executive Chairman) outperform all the family and non-family combinations of leadership, including lone founders, multiple founders, father/son, mother/daughter, brothers, sisters and cousins or in-laws. The firms led by married couples in our sample recorded returns on assets of one percentage point higher than the average of around 5.3%, which represents a 19% improvement on the rest. Exploring the dynamics behind this result, we show that performance improves when firms appoint a couple to the top position, but that finding reverses when firms abandon such a leadership model. Moreover, leadership by couples works especially well when the firm operates in knowledge-intensive industries and ones where networks and social capital are crucial for success.

What explains the superior performance of family firms led by married couples?

Our argument is that the alignment of long-run interests and incentives by married leaders can make the firm more resilient to turbulent times and improve its ability to nurture a corporate culture of healthy relationships with stakeholders. In line with these conjectures, we show that firms led by married couples are better able to invest during periods of uncertainty. Moreover, they benefit from lower labor costs in parallel with a lower risk of layoffs in the wave of industry shocks.

Whether families can promote or obstruct



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performance is a crucial question given the predominance of family firms in the corporate landscape. A general implication of our study is that alignment devices that make shared decision-making more harmonious within the family while also spurring long-run incentives are crucial for family firms to prosper.

Understanding whether family members are more successful than professionals in running a business has been fiercely debated by academics and policy-makers. On one hand, family leaders tend to have interests aligned with those of owners. On the other hand, family leaders may be drawn from smaller talent pools compared to the broader labor market. Family leadership by multiple family members may enlarge the skill set at the top of the company, but at the same time paves the way for conflicts, e.g. as siblings compete for rent and power for their separate family branches.

We argue that leadership by couples can alleviate the disadvantages of family management while benefiting from common interests and incentives to manage for the long-run. A more skeptical view could suggest that marriage ties at the top of the company will provide a transmission channel through which family conflicts may feed back into the firm's decision-making.

Leadership by couples mirrors the fact that two partners have discovered important aspects of compatibility and have made a commitment to share both their lives and careers. Leadership by couples may thus feature benefits in terms of common understanding, better coordination and greater information sharing. Moreover, the interests of married couples are often well-aligned and should thus display a lower risk of conflicts. Finally, married couples can benefit from skill complementarity and bring to the business a broader set of experiences and network relationships. Our results highlight the material relevance of these advantages for the financial performance of family firms. ■



THE PAPER

For love and money: Marital leadership in family firms, by
Mario Daniele Amore, Danny Miller, Isabelle Le Breton-Miller, and
Guido Corbetta.

Diversity leaves analysts and funds unimpressed

Diversity has become a hot topic. Yet analysts are more pessimistic about earnings at companies with diverse top management teams, and funds under-invest. This apparent bias raises new questions and opportunities

by Alberto Manconi @

Stock market investors are becoming increasingly vocal about the diversity of corporate leadership: Institutional Shareholder Services (ISS) listed diversity as the number one item on their list of the “Top 10 Corporate Governance Topics to Watch in 2019.” In a paper with Antonino Rizzo and Oliver Spalt, we propose a new approach to studying how diversity among top managers matters for firms in the stock market.

Most academic work on diversity is concerned with the choices made by firms with diverse leadership and whether diversity, via its impact on corporate decision making, relates to firm performance.

In contrast, we studied how diverse top management teams are perceived in the stock market.

That is important, because stock prices reflect expectations, and because perceptions of diversity can potentially color expectations, even if there is no difference in what firms with diverse managers do. We ask whether biases in investor expectations exist for diversity, whether such biases are quantitatively meaningful, and whether they are in favor of or against diverse teams.

Following a long tradition among management scholars emphasizing the multi-dimensional nature of diversity, we develop a new text-based measure that can capture many dimensions of diversity simultaneously and apply it to the financial market in the United States.

Our novel approach is to measure the diversity of a top management team’s biographies, which all US listed firms are required to file with the Securities and Exchange Commission.

That allows us to assemble what is, to our knowledge, the largest and most comprehensive database on corporate diversity to date.

We study investor expectations and how they relate



THE PAPER

Is the Stock Market Biased Against Diverse Top Management Teams? by Alberto Manconi, Antonio Emanuele Rizzo and Oliver G. Spalt.



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to diversity by looking at earnings per share forecasts by financial analysts. Our main finding is that analyst forecasts on firms with more diverse top management teams are more pessimistic than forecasts for otherwise similar homogeneous firms. That is consistent with analysts believing that the costs of more diversity in a top management team outweigh the benefits.

We also find that analyst experience with a given firm substantially reduces the bias in expectations due to diversity, suggesting that inexperienced analysts make systematic mistakes in incorporating the diversity attribute into their forecasts and, on a more positive note, that learning may help reduce the bias.

We also find a similar effect among institutional investors, who tend to under-invest in diverse firms. This effect diminishes, on the other hand, for investors headquartered in states with greater minority populations, more votes for the Democratic party, and states that rank lower on an index of racial animus, i.e. where diversity may plausibly have a less negative connotation.

In sum, the results of our study argue strongly in favor of the view that a substantial fraction of analysts and stock market investors are biased against firms with diverse top management teams. This raises many new questions – and opportunities – for firms, analysts, investors, researchers, and lawmakers. ■



Mafia attacks on politicians more likely at election time

A study shows that organized crime violence targets exclusively local politicians and particularly mayors during the first month after they take office

by Gianmarco Daniele @



THE PAPER

Organized Crime, Institutions and Political Quality:
Empirical Evidence from Italian Municipalities

by Gianmarco Daniele and Benny Geys

Italy is not the only country in the world troubled by organized crime. However, movies like *The Godfather* and TV series like *Gomorrah* have made Italian criminal organizations well-known worldwide. Although directors tend to glamorize the phenomenon, their films help us understand how Mafia-type organizations resort to violence to influence and weaken public institutions.

Data collected by the NGO *Avviso Pubblico* [Public Notice] report 1,191 violent attacks on Italian politicians in the 2013-2015 period. This is "just" aggressions and threats reported to police authorities, so the actual number is likely to be much higher. How does political violence affect Italian politics? In a recent study published in the *Journal of Public Economics*, co-authored with Gemma Dipoppa of the University of Pennsylvania, I have sought to understand the problem by studying the data collected by *Avviso Pubblico*.

Why do criminals attack politicians? The goals of criminal organizations differ from one group to another. Organized crime is defined as a centralized, often international, criminal enterprise that seeks to infiltrate politics and extract public resources in order to secure private benefits.

In Italy, according to our study, the Mafia often threatens politicians to win government contracts for waste management, procurement, and other public services. Individual politicians who threaten Mafia interests are often put in danger. Physical assaults, arson, and death threats are



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the Mafia's favorite tactics. These crimes constitute 70% of the 1,191 attacks documented by *Avviso Pubblico*.

In 2016, Giuseppe Antoci, director of a national park in Sicily, suffered a murder attempt after having strengthened the anti-Mafia checks on local businesses that work in the park. Other politicians are corrupt and contribute to the problem of Italian organized crime by sharing illegal profits with the Mafia.

"We must all be sated," a bribed bureaucrat from the Campania region was overheard saying over the phone by magistrates who had tapped his line. Between 1991 and 2018, the Italian police dissolved 266 municipal councils for their links with criminal organizations.

It is interesting to note that none of the documented political violence concerns national politicians, presumably because attacking well-known politicians would bring excessive media exposure. So the attacks target local politicians. Mayors were targeted 310 times out of the documented 1,191 attacks occurred from 2013 to 2015. Italians know this, because they read these stories in local newspapers.

For example, the mayor of Marcianise, a city near Naples, left office in early 2018 after a wave of threats. And the mayor of Rizziconi, in the Reggio Calabria province, was blacklisted by members of the community (including some of his relatives) after denouncing the mob's tactics to pressure him. Mafia attacks on politicians are usually linked to the electoral cycle. In regions where criminal organizations are entrenched (such as Sicily, Calabria and Campania), political violence is much more likely to occur immediately after local elections, our study found.

Attacks on politicians are 25% more likely in the four weeks immediately following the election of a new mayor. The strategy has a specific intent: to send a clear message to the newly elected representative and communicate the risk associated with taking policy decisions inimical to Mafia groups. Political violence also diminishes political selection: in a previous research study, I showed that when politics looks like a dangerous job, the most competent and educated individuals will be discouraged from applying. And while organized crime gets richer, Italian politics gets impoverished, as our research shows. ■



THE BOOK

Il socio occulto, by Marella Caramazza (Egea, 2019, 176 pages, in Italian, €16.15) reconstructs Mafia infiltration in companies and the social fabric of Northern Italy through figures, facts, interviews and direct experiences.



THE PAPER

Mafia, elections and violence against politicians
by Gianmarco Daniele and Gemma Dipoppa

When fiscal policy



y is bad for your health

The link between fiscal policy and health is clearly visible in suicide and mortality rates. And the consequences show up both in times of austerity and of expansion

by Veronica Toffolutti @

Many countries implemented austerity measures to deal with recession by increasing taxation and/or reducing social spending. This generally caused consumption to fall, which in turn caused a drop in gross domestic product. However, the empirical evidence concerning the potential effects of fiscal policy on people's health is very limited, despite the interest taken by many researchers and policymakers, including former director of the IMF Dominique Strauss-Kahn, who said at the height of the Great Recession: "The consequences of austerity policies in terms of human lives could give rise to a real tragedy." In the study "Does austerity really kill?" I published together with Marc Suhrke (Center for Health Economics, University of York and Luxembourg Institute of Socio-Economic Research) in *Economics & Human Biology* we look at data coming from 28 EU countries from 1991-2013. We gauge the correlation between fiscal policy (austerity or fiscal stimulus) and public health, by using seven specific mortality rates by cause and the total mortality rate as synthetic health indicators. In particular, we distinguish the effect of fiscal policies from that of economic fluctuations, such as for example periods of boom or crisis.



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The results are quite complex, and offer only partial confirmation of theoretical hypotheses. First, austerity regimes really are associated with an increase in the suicide rate and the total mortality rate, but periods of fiscal stimulus lead to an increase in specific mortality rates, in particular those linked to road accidents and cirrhosis and other chronic liver diseases.

Secondly, our work corroborates previous results regarding the association between economic fluctuations and mortality rates; in fact, with the exception of suicides, most mortality rates tend to decrease as the unemployment rate increases, thus compensating for the negative effects of fiscal policy. Suicides, however, are a case apart, as they respond to both unemployment rate increases and austerity policies.

There are various mechanisms that can explain the positive correlation between austerity and mortality. For example, austerity measures could increase the stress to seek a new job, thus influencing the psychological health of individuals, increasing their risk of committing suicide.

Moreover, during periods of austerity the purchasing power of individuals is likely to be hit by a double whammy: taxation increases as social protection is lowered.

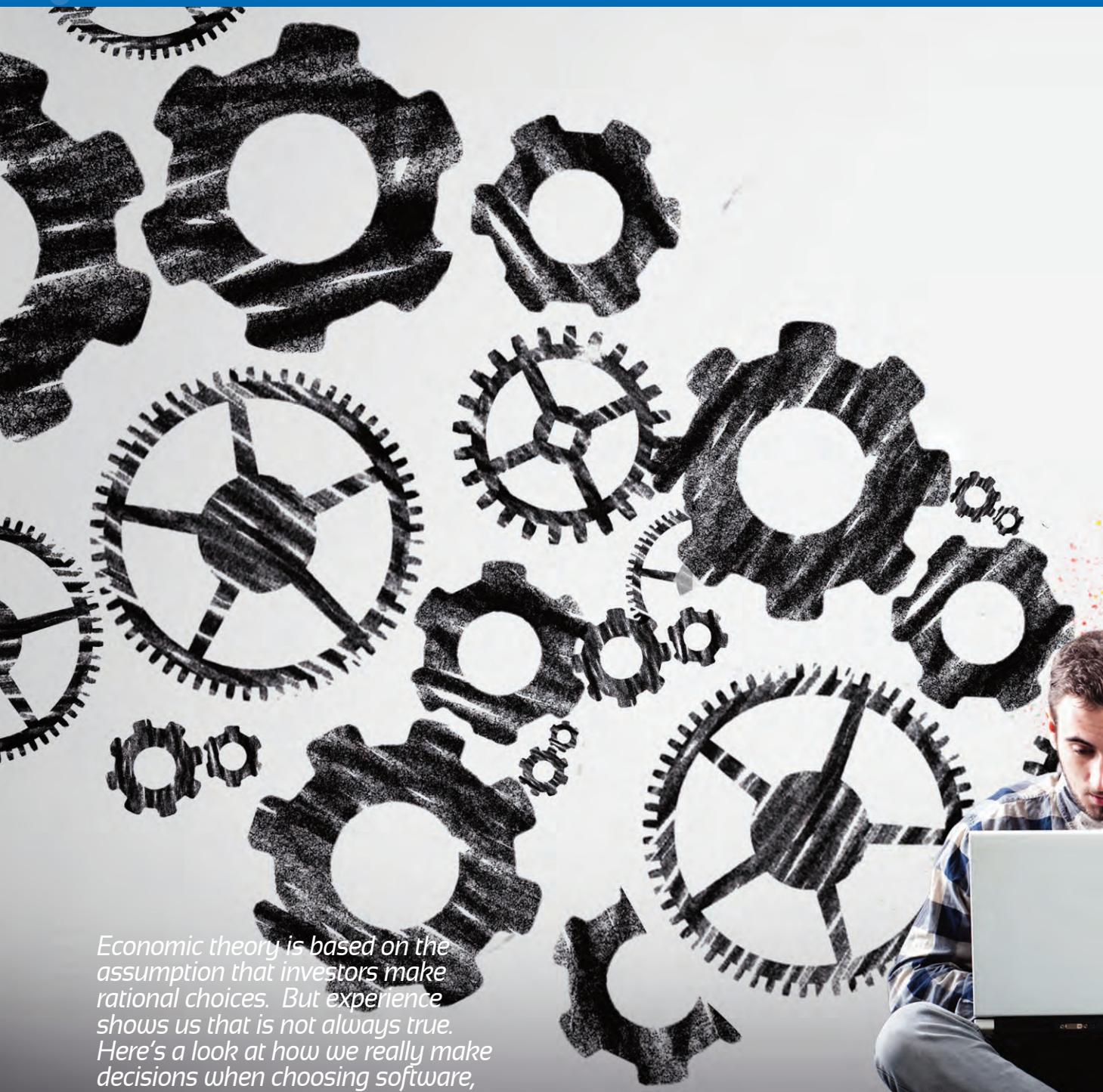
The latter is also associated with a deterioration of health services, such as screening for infectious diseases.

In conclusion, fiscal policy does have an impact on health, but we are only beginning to understand how and further research is needed to understand the adverse effects in greater detail. ■



THE PAPER

Does austerity really kill? by Veronica Toffolutti and Marc Suhrke



Economic theory is based on the assumption that investors make rational choices. But experience shows us that is not always true. Here's a look at how we really make decisions when choosing software, a college major, answer a survey or manage a start-up

by Nicola Gennatoli @

Exposing the myth of rational



nal decision-making

People routinely decide how much to save, which stocks to buy, which skills and knowledge to acquire, which politician to vote for, etc. These decisions breathe life into firms, governments and markets, shaping their functioning in critical ways. But how are individual decisions made?

In traditional economics, decisions are rational: they best promote the decision maker's self-interest. Rational investors form the best forecasts of the prices of traded assets, and buy those that best match their risk preferences. Rational consumers make a purchase - say a sweater - when the best assessment of its qualities (color, materials...) is larger than its combined costs (price, taxes...). In intertemporal choice, it is rational to decide whether to do physical exercise when the current cost is smaller than the future benefit of earning a higher pension or of being healthier.

Rational decisions are of course not perfect because there is much uncertainty about them. But no systematic mistakes are made. People do the best given their limited information.

This idea has deep implications. When decisions are rational, competition functions like clockwork. It rewards the best goods or financial assets, driving inferior ones out of the market. It also causes firms to make the best decisions: to produce goods that rational consumers like, to take risks that rational investors are willing to bear. Of course, there are externalities and market failures. But in a rational world these can often be fixed, for instance by taxing undesirable activities. Indeed, rational people will follow tax incentives. Thus, rationality offers an optimistic perspective: public policy can steer markets for the better. Despite its appeal, much evidence in the last thirty years shows that rationality is a poor way to describe many decisions. For instance, when choosing investments, we are often too optimistic about assets that have been recently delivering high returns. Rational investors do not make this mistake: they quickly learn that recent history is a poor predictor of future returns.

Critically, irrelevant factors appear to influence many other decisions: we buy sweaters during unusually cold days, or convertible cars during sunny days, and then



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regret our choices. Rational people are not swayed by these patently transient conditions. Interestingly, we also make the opposite error of neglecting some highly relevant factors. For instance, when buying a good we don't pay enough attention to taxes or fees that are not displayed in the posted price. A rational consumer is attentive to all costs, even the less salient ones.

Finally, we all know too well the failings of our own willpower: we would like to save or go to the gym, but unlike a rational agent we are often tempted to procrastinate.

There are two important lessons from this body of work. First, markets are far less benign than we think, in ways that help explain key phenomena. When booms cause many investors to be too optimistic, asset prices are inflated and the system is vulnerable to crashes. The dot-com bubble in 2000 or the 2007-08 crisis in the US are cases in point. When many purchases are influenced by irrelevant attributes and inattentive to non-salient costs, competition encourages firms to dupe unsuspecting consumers. Strategic discounts to artificially inflated regular prices or hefty fees hidden in fine print are examples of practices that have fallen under the radar screen of consumer protection agencies in many countries.

Secondly, when decisions are not rational classical policy levers are often ineffective. Raising taxes to discourage the use of environmentally unfriendly products will not reduce demand unless the tax increase is so large as to be noteworthy. But then such a large increase may be problematic to implement.

Subsidizing gym enrollment to promote health in an aging population will not help: people may well enroll, but still lack the willpower to go to the gym. Raising interest rates during a boom may not discourage excess borrowing by over-optimists; it could actually increase their debt burden. And ultimately, the ability of the electoral process to solve social problems is questioned when voters may fail to pick the best politicians.

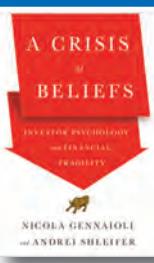
Are things so bleak?

Not really. The pitfalls of the rational approach mark the beginning of a new enterprise: developing a better theory of human behavior. Many economists are starting to take psychology seriously, developing theories founded on robust regularities about human perception, memory, emotions, etc. These efforts are beginning to put conceptual order in the long list of anomalous decisions. Applications of these theories are shedding light on important economic problems. Furthermore, more realistic theories of human behavior can offer new, and smarter, policy tools that are based on the subtle psychological cues that anchor our thinking. This research program is still at an early stage, but eventually a new synthesis and a better understanding will emerge. Back to the drawing board: there is an exciting way ahead! ■



THE BOOK

In *A Crisis of Beliefs* (Princeton University Press), **Nicola Gennaioli** and **Andrei Shleifer** (Harvard) reinterpret the collapse of the US financial system as a consequence of investors' misplaced confidence in regulators. It looks at the destabilizing role played by belief formation.





ARNSTEIN AASSVE Corruption can have longterm impact on voter views

New research shows that political corruption creates long-term scars on the trust in democratic institutions and on voters' behavior.

These effects differ according to one's age cohort. People who vote for the first time when corruption is revealed are still being affected 25 years later. In particular, Bocconi University's **Arnstein Aassve**, **Gianmarco Daniele**, and **Marco Le Moglie** focus on the Italian 'Mani Pulite' scandal between 1992 and 1994 that revealed widespread corruption among Italian politicians. Twenty-three percent of national MPs and a staggering 75% of MPs from the then-ruling Christian Democrat and Socialist parties were charged with corruption, and the 1994 electoral campaign was centered on this topic.

Political corruption, completely missing from Italian TV news up to then, suddenly dominated both TV news and newspapers (with almost 90% of the front pages dedicated to the scandal in 1993).

Using data from Trustlab, coordinated by the OECD to collect national data of trust and political beliefs, the scholars find that Italian first-time voters in 1994 were 9% more likely to vote for populist parties in 2018 (according to their self-reported behavior) and recorded lower institutional trust (i.e. trust in parliament, government and civil servants). Their trust in bodies not immediately related to the Clean Hands scandal (police, media, and financial institutions) and their social trust (trust towards other individuals) were unaffected.

The effect is stronger for less educated individuals and for people more exposed to TV news in the areas most affected by the corruption scandal. Furthermore, the effect is driven by the 2018 vote for the populist right-wing party Lega, while vote for the left-wing populist party Movimento 5 Stelle was unaffected.



THE PAPER

The Effects of High School Peers' Gender on College Major, College Performance and Income by Massimo Anelli and Giovanni Peri.

MASSIMO ANELLI Peers and gender can influence choice of college major

Choices of college major account for 30% of the gender pay gap among workers after they graduate. Women tend to opt for humanities, while men prefer scientific degree courses that result in better economic outcomes. Researchers have investigated the determinants of these choices in order to find a way to counterbalance them. Laboratory experiments conducted by behavioral economists have shown, for instance, that women shy away from competition with men. This could be the reason why female students, after having experienced competition in high school, stay away from prevalently male scientific degree courses. A zero cost policy of classroom gender composition could therefore be a way to reduce the gender pay gap. **Massimo Anelli** tested this theory with **Giovanni Peri** on a longitudinal data set of 30,000 Italian students who graduated in 1985-2005.

"We found that gender composition of peers in high school does not affect the choice of college major by female students," Massimo Anelli says. "Only male students attending a high school class with 80% or more male classmates have a probability of choosing a prevalently male college major between 6% and 15% higher than the average."

This could be explained by the way female students and male students form their networks of friends. The former prefer strong ties with a few people, regardless of the number of other girls in the classroom; male students tend to expand their social network and this attitude ends up influencing their choice of college major. "This is not necessarily good news. The influence of the social network pushes male students to enroll in majors too complicated for them. They end up graduating with bad grades or dropping out of school before completing their degree. The increased likelihood of choosing prevalently male majors does not translate into any significant effect on income of male individuals who attended a high school class with more than 80% of male peers. Segregating classes by gender would be ineffective or even harmful."

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THE PAPER

Never Forget the First Time: The Persistent Effects of Corruption and the Rise of Populism in Italy
by Arnstein Aassve, Gianmarco Daniele, Marco Le Moglie



PIERPAOLO BATTIGALLI Anger affects decision making, game theory shows

Anger affects decision making. It can lead us to act aggressively and to forgo material gains. **Pierpaolo Battigalli** has explored the subject in the context of game theory. Drawing on insights from psychology, he has developed a formal approach with Martin Dufwenberg and Alec Smith according to which the choice of accepting or rejecting an unfair proposal is affected by frustration due to unfulfilled expectations. Frustration, in turn, triggers anger.

The authors tested the theory in the strategic context of an Ultimatum Minigame conducted on 350 Bocconi students. The Ultimatum Minigame is a social dilemma where a proposer can decide to make a fair offer that is automatically accepted or a greedy offer that the responder can either accept or reject. "According to the traditional economic theory, rational economic agents aim to maximize their gain and expect others to do the same. The proposer should therefore offer an asymmetric division of the amount of money and the responder should accept it just to earn something. Experiments have shown that, in the case of an asymmetric proposal, many responders deliberately choose not to earn anything, doing great harm to the proposers and minor harm to themselves. The more the responder expects a fair offer, that is, when his expectations are frustrated, the more it happens."

The experiment was applied using also the so-called strategy method that asks the responder to specify a rule of play that is therefore executed by default. According to the expected utility theory, the responder should make the same choices he would make with the direct method after actually observing the offer. "But simply imagining that an adverse event may occur is not enough to ignite the frustration that generates anger and rejection. And that is actually what we have found in the context of the Ultimatum Minigame by comparing direct and strategic methods. We also increased the responder's payoff with the purpose of increasing his frustration due to the unfair proposal, with no effect.

Or rather, only the distribution of actions of male subjects was in line with the theory. This difference will be the subject of further research."



THE PAPER

Frustration and Anger in the Ultimatum Game: An Experiment by Chiara Aina, Pierpaolo Battigalli, and Astrid Gamba



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THE PAPER

Making Experience Count: The Role of Reflection in Individual Learning by Giada Di Stefano, Francesca Gino, Gary P. Pisano, Bradley R. Staats



GIADA DI STEFANO When learning something new, try reflecting on it

When we have to choose between trying out new experience by doing a task or reflecting on previously accumulated experience, we are likely to choose the first option. We are convinced that doing is the most important component of learning, but we are wrong, as **Giada Di Stefano** has proved with her field and laboratory experiments.

The Professor of Strategy and three co-authors have measured the benefits of articulating and codifying an experience, focusing on activities with which ordinary people, students and corporate employees were unfamiliar. "It only takes a minimum level of familiarity with a task in order for a minute spent on codifying and reflecting on the experience accumulated to be more beneficial than a minute spent on accumulating additional experience," she says.

The researchers initially tested their hypothesis on a hundred individuals doing a training program in a firm that provides back-office services to large companies in the IT sector. They were divided into two groups. One group was asked to spend the last 15 minutes of the day on their normal training activities. The other group was asked to spend the same amount of time on reflecting.

The difference in participants' performance surprised the researchers. "At the end of the training program, all candidates took a test. Candidates who were asked to replace practice with reflection improved their score by 20% on average. They continued to perform better in customer satisfaction surveys until one month after the end of the experiment."

Two mechanisms explain the effects of reflection on performance: 1) the individual's increased self-efficacy, regardless of the quality of their performance; 2) better understanding of the task itself.

"These two mechanisms coexist, but only the latter significantly mediates the relationship with performance. We replicated the experiment using many different tasks, and the result is pretty robust. Whether it's finding images on a computer screen, solving math puzzles or singing in tune, our performance improves when we are forced to reflect."

MELE AND BELARDINELLI Peer choices can have an impact on behavior

Imagine that a civil servant is purchasing a software package, and he is told that it is a suboptimal choice even though it is recommended by his professional association. What will he do? Will he go along with his peers, or will he choose an alternative?

This is the question posed by **Valentina Mele** and **Paolo Belardinelli** while investigating the decisions of civil servant managers through eight experiments conducted with Nicola Bellé and Paola Cantarelli.

"In the literature, isomorphism (or taking on the same shape) is the process by which organizations become similar to each other," they say. "We have investigated the micro-foundations of isomorphism to find out if isomorphic pressures lead to suboptimal decision making in the context of public administration."

The authors asked 764 public employees to imagine themselves as a superintendent who has to choose between two refresher courses or two software packages. One option was explicitly worse than the other, yet supported by guidelines, colleagues or professional associations. Without isomorphic pressures, 11% to 17% of individuals, depending on the experiment, chose the worst option. With isomorphic pressures, the percentage rose to a maximum of 63%.

"According to a qualitative inquiry, civil servants have not engaged in irrational choices," they explain. "They opted for the suboptimal option because it actually met some need; because it guaranteed uniformity of the public sector; because they trust institutions and colleagues who make recommendations."

The risk of a suboptimal decision is lessened when subjects have to decide on their own that the recommended product is inferior based on data. "Beware: isomorphic pressure does not necessarily lead to suboptimal decisions," they say. "Isomorphism should be used with awareness to promote evidence-based choices."

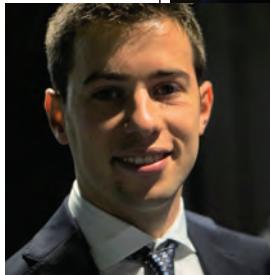


THE PAPER

On Iron Cages and Suboptimal Choices: an Experimental Test of the Micro-Foundations of Isomorphism... by Nicola Bellé, Paolo Belardinelli, Paola Cantarelli, Valentina Mele

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CHIARA SPINA Improving SME performance with decision skills

Small and medium-sized enterprises (SMEs) are a vital part of the United Kingdom's economy. The sub-group of micro-enterprises (up to 9 employees) represents 96% of all businesses, but it only accounts for 33% of turnover. The British government has therefore solicited research ideas aimed at improving productivity in SMEs.

Arnaldo Camuffo, Alfonso Gambardella, Chiara Spina, Elena Novelli (Bocconi alumna and academic at Cass Business School) and **Teppo Felin** (University of Oxford) submitted a project that focuses on decision making.

"The lack of systematic approaches to decision making in micro-enterprises is a barrier to productivity," Chiara Spina says. A course was made available to small classes of entrepreneurs, whose work in SMEs has a direct effect on performance. They



were taught a systematic approach to decision making: definition of objectives, systematic testing, rigorous evaluation of results.

Classes were held in early 2019. Entrepreneurs were trained in operational and strategic efficiency over

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seven sessions of three hours each. The program involved about 250 companies of all kinds, from a jewelry store to a fintech startup. "We already have some preliminary results. After reflecting on these issues, 35% of entrepreneurs have changed their behavior.

Many have learned to focus on new issues, for instance shifting attention from increasing revenue to understanding customer needs," she says. Experience has shown that these courses are useful, but in the long run subjects return to making decisions based on old habits. Researchers are therefore offering individual mentoring sessions.



THE PROJECT

Business Basics Fund: Objectives and Round 1 Results

by Arnaldo Camuffo, Alfonso Gambardella, Chiara Spina, Elena Novelli, Teppo Felin.

JOACHIM VOSGERAU For sensitive questions, a direct approach may be more effective

If we need people to give truthful answers to sensitive questions, relying on people's rationality turns out to be a bad strategy. In a series of lab experiments, **Joachim Vosgerau** and colleagues show that the Randomized Response Technique (RRT)—developed to encourage respondents to give truthful answers to sensitive questions—rarely works and may even backfire.

A direct question may be better, according to Vosgerau's study. To assess the extent of corruption, for example, a researcher needs survey respondents to give truthful answers to sensitive questions. A

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researcher using the RRT would, before asking whether a participant has ever paid a bribe, ask respondents to toss a coin. If the coin toss shows heads, respondents are asked to tell the truth. If it turns out tails, respondents are instructed to say "yes", no matter whether s/he has ever paid a bribe or not.

Because respondents' privacy is protected, the RRT should make respondents comfortable to answer such sensitive questions truthfully. In their main experiment, Prof. Vosgerau and his colleagues asked participants whether they had cheated in a test that had been monitored by the researchers.

In the RRT group, 54.9% of the participants had cheated, but the RRT estimated the prevalence of cheating at only 2.6%; when participants were directly asked whether they had cheated, 27.4% admitted having done so (61.4% in this group had actually cheated).

"Knowing the prevalence of sensitive behaviors is essential for policy-makers and managers who allocate scarce resources to social policies or corporate investments," Prof. Vosgerau says. "If you want to know about questionable behaviors, direct questioning may get you closer to the truth than the RRT."



THE PAPER

When and Why Randomized Response Techniques (Fail to Elicit the Truth) by Leslie K. John, George Loewenstein, Alessandro Acquisti, Joachim Vosgerau.

GUIDO TABELLINI Shocks can cause voters to change political preference

Given that globalization and automation have exacerbated economic inequalities, why do the losers from globalization vote for a party that is proposing a flat tax and not for a party that promotes redistributive policies?

Nicola Gennaioli and **Guido Tabellini** provide the answer in their paper "Identity, Beliefs and Political Conflict."

"Large shocks have changed the political conflict," Professor Tabellini says. "New divisions in society emerged, dividing winners and losers in the wake of globalization and automation. The split between left and right has become less important."

The authors integrated the social psychology of groups into political economic analysis. They found that shocks cause individuals to change their social identity – which may be defined by their occupation, region of residence, social class or religious belief.

"There is an element of depersonalization in the acquiring of a social identity," he says. "Individuals stereotype themselves by viewing themselves more as members of their group than as unique personalities. Thus, the winners from globalization who identify with an educated and urban group are led to praise cosmopolitan policies, whereas the losers from globalization are driven to exacerbate the conflict between nationalists and cosmopolitans and to mitigate the class conflict."

In other words, globalization causes income inequality to increase, but the polarization of conflict between nationalists and cosmopolitans dampens the demand for redistribution by those who would benefit from it.

There is more. Political dimensions are correlated across individuals. Voters who traditionally identified with left-wing groups are now attracted by nationalism because it satisfies their demand for protection and also their views on immigration and civil rights. Opinion polls in France and the US have confirmed the theory.

"This is not a passing phenomenon. The shocks that have caused it are not transitory. They may get worse," he says.

GUIDO TABELLINI

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THE PAPER

Identity, Beliefs, and Political Conflict
by Nicola Gennaioli and Guido Tabellini



THE BOOK

In *Influenza invisibile* (Egea, 2019, in Italian), **Jonah Berger** looks at factors that influence our behavior, from the products we buy to the jobs we chose. Without us realizing, other people have an enormous influence on what we do, regardless of whether we try to imitate them or try to do the direct opposite.



INFLUENZA INVISIBILE

Jonah Berger
Le forze nascoste
che plasmano
il nostro
comportamento





Central banks quickly to pop

Credit cycles drive investment expectations, leading to bubbles not adopt a laissez faire approach, benefits are less than

by Stefano

The expansion of credit markets in 2006-2007 and the subsequent financial crisis has renewed the curiosity of economists and policymakers about the connection between financial cycles and the business cycle. Credit expansions are predictors of lower economic growth, lower equity returns for banks and lower returns on corporate bonds. Minsky (1977) hypothesizes that these economic/financial cycles reflect oscillations in irrational expectations. According to this mechanism, the arrival of good news on economic fundamentals makes entrepreneurs and investors overly optimistic. In turn, excessive optimism leads to an excessive decrease in the cost of capital, inducing companies to borrow and invest in excess. The subsequent reversal of good news on fundamentals triggers systematic disillusionment among investors, and therefore the reversal of the economic/financial cycle. Bordalo et al (2018)



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propose a formal model of this mechanism centered on extrapolative expectations. In a recent study by Huseyin Gulen (Purdue), Mihai Ion (Arizona) and myself, we propose a systematic empirical evaluation of Minsky's hypothesis and of the connection between expectations, credit, and investment. In the first part we show that the aggregated cycles in the credit market reflect cycles of expectations. As financial analysts increase their positive forecasts for economic fundamentals, credit expands and its average quality deteriorates. Consistent with the Minsky hypothesis, analysts' optimism reduces the cost of capital, and credit expands through excessive issuing of junk bonds. Later, we show that credit booms are followed by a systematic downward revision in analysts' expectations, especially 3-4 years after the boom. Thus, credit expansions are followed by initial optimism and subsequent systematic disillusionment, consistent with the Minsky

should move credit bubbles

*spending because of positive
s. Monetary authorities should
approach, because short term
medium term costs*

Rossi @

hypothesis.

In the second part, we show that at the level of individual companies, credit cycles generate investment cycles. An increase in credit market sentiment's standard deviation in a year generates an increase in corporate investment equal to 5.1% in year T+1, both in terms of investment in physical capital and intangible assets, especially for financially weak companies. Subsequently, the investment tapers off in years T+4 and T+5, for all companies and not only weak ones. Thus, credit cycles generate investment cycles.

In the third and last part, we close the circle

and link investment cycles to expectations. We find that company analysts who are more optimistic are also ones that: increase investment most at year T+1; reduce it most in years T+3 and T+4; and are also those for which analysts make the largest systematic errors in expectations. These results are consistent with a Q-theory model of financial investment, augmented by irrational extrapolative expectations (Bordalo et al., 2018) to model the Minsky hypothesis. These results imply that in the presence of bubbles in the credit market, central banks should avoid laissez-faire accommodation and instead take a leaning-against-the-wind stance, i.e. raise interest rates to curb the surge in prices. In fact, the short-term benefits of a laissez-faire monetary policy - an increase in investment by financially weak companies - are lower than the medium-to-long term costs, i.e. the subsequent drop in investment for all companies in all industries. ■



THE PAPER

Credit Cycles, Expectations, and Corporate Investment
by Stefano Rossi, Huseyin Gulen, Mihai Ion.



The phenomenon of shareholder activism by hedge funds is growing by leaps and bounds on both sides of the Atlantic. This happens when, by purchasing a significant stake in a target company (close to 10% of equity capital with voting rights) hedge funds undertake campaigns that can be more or less aggressive, often leveraging the seats obtained on the company's board of directors. They push through significant changes to governance, strategy and financial structure, so as to increase stock price and then divest from the company when the desired capital gain is achieved.

Increasingly often, the campaigns are successful, in the sense that the company implements the activist's proposals. Hedge fund activism is successful first and foremost because of the considerable level of support that their proposals win from co-shareholders, in particular from non-activist institutional investors. In selecting the targets, the activist funds therefore tend to concentrate on companies with a large amount of institutional investors in their shareholder base. This does not mean, however, that the activism of alternative funds focuses only on public companies with dispersed share ownership: listed companies with controlling shareholders are also targeted. This is made possible, in part, by corporate rules that favor instruments to protect minority shareholders, such as the right to appoint so-called minority board members. This right is guaranteed in Italy by the list voting system and is made possible in other countries by virtue of various mechanisms. The potential aggregation of significant voting power in support of minority members, with support from other co-shareholders, encourages activists to launch campaigns even in companies with controlling shareholders.



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There is widespread conviction that the activism of hedge funds can have a disciplining effect on controlling shareholders. Such activism is believed to mitigate the conflict between majority and minority shareholders and favor the exercise of stewardship by non-activist institutional investors.

These potential benefits of activism, however, must be assessed on the basis of a necessary and fundamental distinction between situations of legal control and situations of de facto or working control. One Italian case can be a good example. In 2018, a big Italian company was the target of an activist campaign led by a major US hedge fund. In this case the company was controlled not by an absolute majority of voting rights in the shareholders' assembly (legal control), but by a relative majority, albeit stable (working control).

Therefore the interrelation between de facto and legal control led to controlling shareholder's voting rights being outnumbered and the passage of the majority of board seats to minority shareholders, with consequent termination of the former's control without any change in ownership structure and voting rights.

Potentially, the most significant, and probably unexpected, effect is that corporate governance could become less efficient than in a normal situation of de facto control. A controlling shareholder with greater exposure to the performance of the business strengthens its commitment to the company and pursuit of the entrepreneurial vision, which benefits all shareholders. However, the instability inherent in a situation where the normal majority-minority relationship gets reversed increases the likelihood of conflict within the board regarding strategic orientation, without ensuring that traditional institutional investors maintain their support for controlling shareholders. On the other hand, the activist fund that imposes its agenda on the board runs the risk of being qualified in turn as a de facto controlling shareholder, something which would subject it to heavier regulatory requirements. That would have an adverse impact on the hit-and-run business and investment model which is typical of hedge funds. ■



THE PAPER

Activist Shareholders at De Facto Controlled Companies
by Gaia Balp

by Gaia Balp @

When an activist hedge fund buys 10% in a company, it can join with other minority shareholders to wrest control of the board. A study looks at the implications

When the minority share



holder takes control



Bocconians must continue to think and dream big

Alumnus of the Year Urbano Cairo knows how to transform dreams into reality. He shares his story with viaSarfatti25

by Emanuele Elli @

Urbano Cairo combines qualities that are rarely found in a single individual: creativity as well as rigor, courage, energy, a deep sense of logic, pragmatism, and the ability to dream." This is how Riccardo Monti, president of Bocconi Alumni Community, described the Milanese publisher when announcing Cairo's nomination as **Bocconi Alumnus of the year 2019**. The alumni community decided to award the RCS Media Group Chairman for his various achievements, but above all for the ability to transform his passions into entrepreneurial ventures, following a rigorous approach to business and the impulse to rise to ever greater challenges, something that he considers the Bocconi trademark. "Dreaming of ambitious goals must continue to be what drives Bocconians," said Cairo. "Bocconi plays a fundamental role because it helps future managers and entrepreneurs compete successfully internationally."

→ **What kind of student were you?**

Very serious and dutiful. From the start, I considered studying at Bocconi as a job I had to keep up with. Perhaps because I came from a high school that hadn't prepared me so well; it was the 1970s and with student strikes, demonstrations, and sit-ins almost every week, I felt I had wasted too much time. I remember that I really wanted to get started with my university studies and engage in something serious. I maintained my commitment and managed achieve an average of 28.5/30, which was not bad.

→ **In the light of your subsequent career as manager and entrepreneur, what do you think is the most important legacy of the years you spent at Bocconi?** I could list so many things. In addition to business and economics, I became interested in economic policy, sociology, marketing, business organization, all subjects I found very useful for my profession in the following years. But the main lesson was certainly learning a habit of rigor, discipline, and consistency in applying a method. It was something you breathed in

URBANO CAIRO

Born in Milan, Urbano Cairo, 62, is president of Cairo Communication and RCS Media Group (where he is also CEO). He graduated in Business Administration from Bocconi in 1981 with a thesis on "The financial strategy of medium-sized industrial companies that are expanding." He joined Fininvest right after graduation where he had a long managerial career, becoming also CEO of Mondadori Pubblicità. In 1995, he made the leap into entrepreneurship by founding Cairo Pubblicità. In 1999 he acquired the Giorgio Mondadori publishing company. In 2003 he founded Cairo Editore, which today is leader in the Italian market for weekly magazines; in 2013 he acquired the La7 television network, and in 2016 he launched the successful takeover bid for RCS Media Group becoming majority shareholder. Since 2005, he has also been the owner of Torino Football Club, a Serie A team.

the University's halls and classrooms, and I was a bit in awe at the beginning. One time, when I was having relationship issues, I arrived very unprepared for an oral exam. I went, but when I saw the professor and my classmates I felt ashamed; I went back home to study for real and passed the exam at the next session. Bocconi demanded the best from everyone, and I for one wanted to do things well.

→ **When you were a Bocconi student, you won a scholarship and attended a semester at New York University. Is that where your passion for the world of media and advertising began?**

That was a fundamental experience, even though I always had a passion for media and communication. In the family we read *Corriere della Sera* every day, and I often bought *La Notte* at the newsstand because at the time there was this editor-in-chief, Stefano "Nino" Nutrizio, who was putting out an innovative and popular daily newspaper. Private television meanwhile was growing fast in Italy, and that also was a world which attracted me. In the US, I came across a more advanced form of television communication than I was used to in Italy, and I decided I wanted to explore that world further. I read some essays on media in America. In particular *The Powers That Be* by David Halberstam struck me deeply. When I returned to Italy, I immediately wanted to talk about what was happening in the US with the Italian businessman who, at that moment, was at the top of our industry: Silvio Berlusconi.

→ **What was your ambition then?**

At the time, I already wanted to be an entrepreneur, but I was aware that to do that, I first needed to become a manager. I wanted to own a television channel one day and headed in that direction; I thought it was difficult but not impossible, because the sector was opening up. In the US, I had already experimented with the early forms of pay television and I thought of bringing the idea to Italy but then nothing came of it. As for *Corriere della Sera*, as I



said it was a constant presence at home and a reference point, but I thought it was a closed world very difficult to penetrate. I do not say impossible because I believe nothing is really impossible, but certainly if they had told me then that one day I would become the *Corriere*'s publisher, I would have really struggled to believe it.

→ *Is dreaming really so important for an entrepreneur?*

My mantra is "nothing happens if you haven't dreamed it before." Imagining new possibilities is a constant exercise for me. Certainly there are moments when you need to really focus to bring a new project to life, and there is not much time left over for the mind to wander. There are financial accounts to turn around, jobs to be maintained, decisions to be taken. But as soon as the waters calm down and the situation stabilizes, I start thinking about what the next step might be.

→ *You have always had a passion for politics. Could this be your next step?*

In this case, I believe you need to be more cautious than in other realms of life. It is true that I am passionate about politics. As a young man I followed US politics with great interest, but I am aware that politics is not a commitment that can be taken lightly, on a whim. I have a lot of respect for public affairs but also for the people at my companies who work in a complex and constantly evolving environment. I don't think it would be a simple decision to leave all these people behind. ■

Do bank mergers create co

Not always. Mergers in Italy and France between 2004 and 2008 had different impacts. In France, banking competition increased, whereas in Italy, it actually declined in many markets.

by Barbara Chizzolini @



Since the 1990s, in the wake of Directive 646/1989/EC, the hitherto highly regulated banking industry has been liberalized. Successive waves of bank mergers and acquisitions have increased the sector's concentration, initially within national borders of individual European Community countries, then through the creation of transnational banking groups. The avowed purpose of the banking mergers was not to gain greater market power, but rather to enter new markets and diversify operations, as well as transfer or more efficiently exploit managerial skills about customers and targets. For their part, competition authorities have been torn between the opposing imperatives of reversing the concentration process, which generally improves market competition, or instead favoring it to strengthen financial stability in an integrated European market. But how and to what extent does greater concentration imply less competition between banking groups? If the result of a merger is the entry of a new and larger bank in a market previously dominated by a single major group, the entry of the new entity favors greater competition in that market. The opposite occurs if the new bank results from the merger between two or more already existing banks, leaving only smaller banks outside the market agreement, so as to create a near-monopoly in that market. Our analysis of bank mergers in Italy and France between 2004 and 2008 verifies these insights.



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Taking advantage of public information on bank deposits and the size of banking group branch networks in the provinces of Italy and in the departments of France, we derive the profitability of Italian and French pre-merger banks, separately identifying the cost component that varies across banking groups, and the intensity of competition in local markets, which instead affects profitability for all banks operating in these markets. Estimates of group costs and intensity of local competition vary when, after mergers, the number of banks and branches, by bank and by market, changes. Our results show that in France after a string of mergers between Crédit Agricole and Crédit Lyonnais, between Caisse d'Épargne and Banque Populaire, and between Crédit Mutuel and Crédit Industriel Commercial, the intensity of competition increased, thanks to the creation of groups capable of competing more effectively with each other and



THE PAPER

A test of the impact of mergers on bank competition
by Vittoria Cerasi, Barbara Chizzolini, and Marc Ivaldi

mpetition?

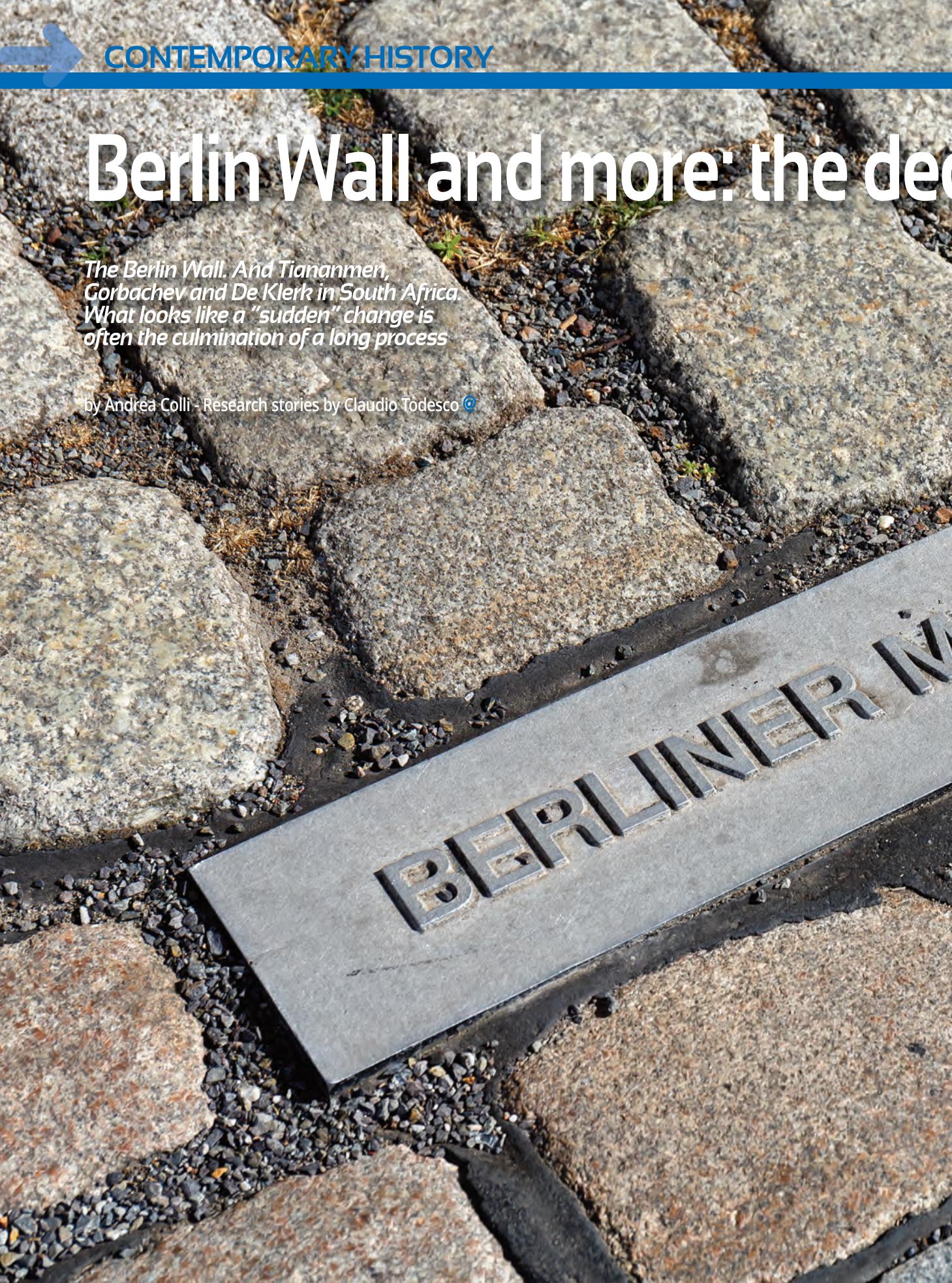
with La Poste on retail credit on all local markets. On the contrary, in Italy, the two mergers between Intesa and Sampaolo and between Unicredit and Capitalia have caused a significant reduction in competition in many local markets. Either Intesa Sampaolo or Unicredit have become dominant groups in several provinces, despite competition from local banks. It should be added that while in France all the banks had even larger networks of branches in all departments before the mergers, in Italy there are few banks that operate throughout the national territory and mergers have further reduced that number. Asymmetries in number and size of banks across provinces favors situations of poor competition in several local markets. The advent of technological innovations and entry into the sector of state-controlled BancoPosta (and to a lesser extent of state-owned Cassa Depositi e

Prestiti) in the lending market have since then substantially changed the structure of the banking industry in Italy. The number of privately-held bank branches has fallen by 25% across the country, while it is not entirely clear how the interaction between private and public banks will affect the mechanisms that currently regulate competition in the industry. These considerations shall receive further and more in-depth study. ■

Berlin Wall and more: the de

The Berlin Wall. And Tiananmen, Gorbachev and De Klerk in South Africa. What looks like a "sudden" change is often the culmination of a long process

by Andrea Colli - Research stories by Claudio Todesco @

A close-up photograph of a metal plaque with the text "BERLINER M" partially visible, set into a stone wall. The plaque is rectangular and made of a dark metal. The text is in a bold, sans-serif font. The plaque is set into a gap between large, light-colored stone blocks. The ground in front of the plaque is covered in small, dark pebbles. The lighting suggests it is a sunny day.

decisive year of 1989



Dates on the calendar with important anniversaries are rightly celebrated, although it is worth remembering that they are symbolic: historic choices are hardly all concentrated in what the great historian Stefan Zweig calls "decisive moments." However, it is hard not to label November 9 1989 as such, since so many changes since that date have profoundly affected the modern



ANDREA COLLI
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world. On closer inspection, however, the day "the world changed" can be viewed not so much and not only as the fall of a barrier – symbolically, the expansion of the space that takes the name of globalization – but also the point of arrival of a long journey that began many years before, when the cracks in the bipolar geopolitics of the Cold War had begun to spread everywhere.



THE BOOK

Berlin bombarded by candies; hundreds of balloons flying overhead. An anarchist collective called "Third Berlin." Portraits of three future leaders and events in the daily lives of a few ordinary people. This is *Il Muro* (The Wall) by **Francesco Cancellato** (Egea 2019, 144 pages, in Italian, €16).



Like in East Asia, when China initiated the reform policy in 1978 that sanctioned re-entry into the global economic system; shortly afterwards, in Eastern Europe, when the first strike in the Danzig shipyards in August of 1980 led to the birth of an opposition to the regime by the Solidarity trade union. Just like the center of an hourglass, in short, November 1989 was as much a starting point as it was a point of coagulation of transformations that had started long before. If, however, we look at a simple chronology of the events of that year, it is difficult to escape the impression that it really was a decisive moment, characterized by an exceptional, unusual bundle of revolutionary events destined to deeply and permanently influence the times to come.

By the time the Wall was demolished, 1989 had already witnessed a quick sequence of events that heralded radical changes. Starting in the spring, student protest movements inflamed China and led to the tragic events of Tiananmen. At the same time, the Soviets finally admitted the failure of their Afghan campaign, starting the withdrawal of troops that had occupied the Central Asian country, while Mikhail Gorbachev, President of the USSR since May, had lunch at Buckingham Palace, shortly before meeting Pope Wojtyla in Rome.

With the election of Frederik De Klerk in South Africa in August, the process of knocking down another equally hateful wall had begun: a racial one. Meanwhile, Hungary

started the removal of hundreds of kilometers of border fences with Austria (a gesture that today has a bitter taste). Demonstrations of the Velvet Revolution followed in Czechoslovakia in the spring, while the songs of the "Singing Revolution" resounded in the Baltic republics. In Romania, the autocratic regime of Nicolae Ceausescu was inexorably disintegrating. But it wasn't just a political revolution. Other barriers were falling, in a world that was suddenly increasingly interconnected: in early 1989, Motorola launched the Micro TAC, the first real mobile phone, and in the United States the first commercial internet connections were established.

At the same time the first GPS satellite was beginning to orbit the Earth. Privatization and liberalization spread everywhere in Europe, effectively symbolized by the privatization of the water sector signed by the British conservative government in the summer of 1989.

Unfortunately, however, there was even more to the cornucopia of 1989.

On 28 June 1989, on the 600th anniversary of the Battle of Kosovo, Slobodan Milosevic was speaking in the middle of the ethnic Albanian majority region in Kosovo, in front of a Serbian multitude. He gave a speech praising peace, prosperity and unity – but which, in fact, constituted the first episode of a tragic conflict destined to ignite the Balkans for a decade, and to turn into one of the most tragic and shameful legacies of that extraordinary year. ■

CARLO ALTMONTE Romania and lessons for the EU budget 2017-2027

Income disparity across regions is one of the causes of the rise of populism in Eastern Europe. These disparities are very often rooted in history, as in Romania's case, which was studied by Carlo Altomonte.

After the fall of the Berlin Wall, the transition to a market economy benefited the country, which received advantages from financial resources transferred from Western Europe. The growth was geographically unbalanced, however.

"Every Romanian region was different," Professor Altomonte says. "For strategic reasons, in many Eastern European countries heavy industry was located near the Soviet Union border, where factories could be defended more effectively."

Investments in service and technology-intensive sectors in big cities drove the country's growth after the fall of the Berlin Wall. Meanwhile, in industrial areas, multinationals were restructuring their operations. This led to job losses and a rise of political tension. For this very reason, the European Commission allocated €345 billion in 2007-2013 to correct these regional disparities.

"Regional disparities across Eastern Europe have contributed to the emergence of anti-European parties," says Altomonte. "The allocation of European funds has reduced these disparities, yet they persist. This must be taken into account in the management of the European budget 2021-2027. Lowering resources for regional development could be dangerous," he says.

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GIANMARCO OTTAVIANO Impact of German unification on domestic jobs

In the eleven years following German reunification, more than two million people fled from East Germany to West Germany. That was not the only immigration wave in late 20th-century Germany. Between 1988 and 2001, 2,800,000 Germans living abroad returned to their homeland.

"What are the effects of these waves of immigration on the labor market?" Gianmarco Ottaviano asks.

"The decision to open the border was made on a purely political, not economic, grounds. It therefore allows us to separate cause and effect. Also, the arrival of these new workers allows us to check what happens when immigrants enter the labor market without any cultural conflict."

According to the analysis of an administrative dataset on the German labor force in 1987-2001, native workers were not hurt by immigration, while previously migrated workers, mainly Greeks, Turks and Italians, suffered negative employment effects, in particular those with lower levels of education.

For every 10 new immigrants joining the German labor force, two old immigrants lost their jobs. The wage effects were negligible.

The authors suppose that new immigrants and previously migrated workers competed for the same jobs. The fact that they were not familiar with customs and traditions made them both unsuitable for jobs that required a high degree of interaction with customers.

"The German market was highly regulated," Professor Ottaviano notes. "So, the wave of immigration impacted on the employment rate, not on wages. In the absence of these rigidities, adjusting wages would have cost the taxpayer less than spending on welfare."



THE PAPER

Firm Heterogeneity and Endogenous Regional Disparities
by Carlo Altomonte and Italo Colantone.

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THE PAPER

The Labor Market Impact of Immigration in Western Germany in the 1990s by Francesco D'Amuri, Gianmarco Ottaviano, and Giovanni Peri.



ELEANOR SPAVENTA Enlargement to the East changed the face of the EU

The enlargement of the European Union to include countries from Eastern Europe after the fall of the Berlin Wall caused some major institutional changes. While it was acquiring (albeit minimal) competencies in foreign policy, the EU had to reconsider its geopolitical role.

The member states have tried to find the best way to prevent the democratic regression of the former Soviet Union and Eastern Bloc countries. The protection of fundamental rights and the respect of the rule of law have therefore been included in the accession criteria and the European Council was given the task of identifying violations. Unspecified sanctions were supposed to be implemented in the event of a persistent violation.

"Thirty years later, these procedures have proved ineffective in dealing with Hungary and Poland's anti-democratic drifts," says Eleanor Spaventa of the Department of Legal Studies. "The first procedure requires a majority of four fifths of the countries and can be blocked rather easily. The second one requires unanimity. Also, governments don't like to interfere in internal affairs. They do not want to adopt state-specific measures, nor do they want to disadvantage citizens of those countries, feeding an anti-European sentiment." The European Commission is proposing regulation, requiring a smaller majority of votes, according to which European funds may be suspended in case of systemic violations of the rule of law.

The Commission has also suggested that European funds should be allocated only to political parties whose members respect democracy, the rule of law, and human rights.

"These decisions, too, are bound to be met with criticism," she says. "Enlargement to Eastern Europe meant great economic and geo-political opportunities for the EU. Yet this success story is undermined by anti-democratic drifts in some countries. The EU seems unable to react both legally and politically. It is still unclear if it will find a way to help strengthen young democracies."



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ROGER O'KEEFE UN played important role in recognizing new states

The fall of the Berlin Wall triggered a chain reaction on the eastern side of the Iron Curtain. With the proliferation of new states, from Estonia to Macedonia, and of entities claiming to be states, the international community was called on to consider their membership of the United Nations (UN). One criteria was the exercise of control by their government over most of their territory. Georgia, Moldova and Bosnia-Herzegovina did not seem to meet this requirement, yet were promptly admitted to the UN. According to many, the timing was premature. Conversely, Macedonia seemed to satisfy all criteria, yet admission was delayed for a year. Was a double standard applied by the UN? "The name 'Macedonia' and a flag bearing a symbol said to be linked to Alexander the Great were vigorously objected to by the Greeks, who hinted at war," says Roger O'Keefe, Professor of International Law. "So the admission of what came to be referred to as the 'former Yugoslav Republic of Macedonia' (FYROM) - now 'northern Macedonia' - was put on hold. It looked like a case of sordid politics that had nothing to do with the law. In reality, the law of the Charter of the United Nations was central." Central to becoming a member state of the UN is the approval of the UN Security Council, which also has "primary responsibility" under the Charter for international peace and security. "Both premature and delayed admissions reflect the exercise of this responsibility," Professor O'Keefe observes. Given that outside states were already occupying parts of Moldova, Georgia, and Bosnia-Herzegovina, not admitting them would have invited their complete carve-up through all-out war. Their prompt admission secured their legal protection. Macedonia's admission was delayed because, given the position of Greece, it would have threatened peace and security. The UN Security Council put it on ice and held negotiations to resolve the situation peacefully. Macedonia was eventually admitted, under a different name, when tensions had cooled.



THE PAPER

The Admission to the United Nations of the Ex-Soviet and Ex-Yugoslav States by Roger O'Keefe



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Higher bond spreads did force banks

A study of the 2010-2012 debt crisis shows that when banks lacked short-term financing, they reacted by reducing their lending, with a knock-on effect for the real economy

by Filippo De Marco @



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Over the last year, Italy has been threatened again with rising spreads on treasury bills, i.e. the difference between the yields paid by the Italian government and the German government to their bond investors. A rise of the spread signals that investors believe Italian securities are riskier and therefore of lower value, asking for higher returns (since yields and asset prices are negatively correlated). Many commentators argue that due to the higher spread, Italian banks, which hold about €380



THE PAPER

Bank Lending and the European Sovereign Debt Crisis
by Filippo De Marco.



to reduce lending

billion in government bonds, have increased rates on new mortgages and reduced the supply of credit to the real economy.

In this context it is useful to examine the experience of the 2010-2012 sovereign debt crisis, when the spread, not only in Italy but also in Greece, Ireland, Spain and Portugal, reached levels much higher than currently. Analyzing the data on sovereign debt exposure of the main European banks, I was able to provide econometric estimates of whether the banks

most exposed to spread variations actually reduced the supply of credit to businesses and increased rates on loans in the 2010-2011 period. The reduced availability of credit has had negative effects on private investment, especially by small and young firms, which tended to borrow more heavily from banks with higher exposure.

But what are the channels that can damage banks and, ultimately, households and businesses? First, a decrease in the market value of the securities held in the portfolio can reduce the bank's capital, forcing it to cut credit to meet capital requirements. However, market losses are only potential, and depend on how the bank classifies government securities in its books. By simplifying a lot, these can be valued at market prices (Marked-To-Market, MTM) or at historical prices (Held-To-Maturity, HTM). In the former case, but not in the latter, a rise in the spread immediately impacts the bank's equity capital. However, it is unlikely that the capital channel worked this way. Stress test data from the European Banking Authority show that in large part (about 50%) banks' sovereign debt exposure was not MTM. Moreover, even among those MTMs, potential

impairment losses were not accounted for in the calculation of prudential capital. However, the banks which were most exposed did reduce lending. How? Potential losses on sovereign debt increased the cost of short-term refinancing on the wholesale market funding channel.

In fact, institutional investors who lend funds to banks react to potential losses, even if not yet realized. In other words: financial markets are not interested in the accounting definition of a bank's sovereign debt exposure, but rather whether sovereign risk exists and if it can appear in the future.

In support of this thesis I found that the American mutual funds which invested in unsecured securities issued by European banks (in particular commercial paper and certificates of deposits) were no longer willing to renew their loans to banks, especially if they were exposed to the sovereign spread risk. And it was the banks which relied on these markets for their short-term funding that cut the supply of credit the most. In conclusion: the spread does have effects on the real economy through the banking system. ■



One size does not always fit all

When managing alliances, standardizing procedures in a dedicated unit can help to onboard new partners. But rigidity can destroy value for familiar "old buddies"

by Dovev Lavie @



A dedicated alliance function (DAF) is a business unit directly responsible for developing and disseminating alliance management practices and overseeing the company's alliances. Companies in many industries establish DAFs, hoping to create more value in their alliance relations. However, some studies reveal that a DAF can limit flexibility and may not necessarily contribute to the success of alliances. In a recent study, I analyzed more than 15,000 alliances, and found that by enhancing standardization, formalization, and centralization of alliance management practices, a DAF creates value with new partners, but at the same time, destroys value with repeated partners.

The DAF enables companies to learn how to manage alliances, but learning depends also on the company's experience with partners. The DAF can leverage industry best practices when codifying and integrating know-how gained in the company's various alliances. It transforms diverse inputs into standard practices that can be consistently applied with new partners, and improve the predictability of outcomes. The DAF also facilitates formalization by codifying tacit know-how, and introducing manuals, checklists, and review forms, such as those used for assessing prospective partners. This formalization is most valuable when forming alliances with many new partners. Finally, by appointing a corporate executive who oversees alliances, the DAF can effectively monitor alliances and intervene in their operations. This is especially useful when collaborating with multiple new partners, because centralization supports effective application of coherent alliance management practices. The diverse experiences gained with various partners increase the potential value that the DAF can create for the company.

Paradoxically, the same approach that



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enables the DAF to create value with "strangers" (new partners) destroys value in the company's alliances with "old buddies" (repeated partners). Specifically, standardization of company-specific practices may become suboptimal when applied in repeated alliances with a partner whose characteristics are unique. In these alliances, the company and its partner need to develop mutually agreeable partner-specific routines, as IBM's vice president noted: "It took us nine months to resolve the management styles between us and Siemens. You have to talk about it, work through it and come to agreement on how you are going to exercise leadership." A DAF that instead promotes company-specific routines may impose rigidity and restrict adaptation to the unique needs of such a partner. Efficiency comes at the expense of flexibility and adaptability in this case. Moreover, the DAF's formality counters the informal nature of repeated alliances with the same partner, in which mutual trust, social embeddedness, and commitment evolve naturally. A partner with whom the company has built trust and formed interpersonal ties may be discontented by formal practices. This creates tension that undermines trust and collaboration. Finally, the centralization imposed by the DAF can generate tension between the corporate office and alliance managers. As an alliance manager noted: "You cannot do that from the corporate office. I am here every day. I have lunch with these people, I go out with these people. You can gain a lot of access just by walking down the hall." Hence, the centralized practices may be disconnected from the alliance's actual needs. In sum, the DAF enhances standardization, formalization, and centralization of alliance management practices, which can undermine relational mechanisms that evolve with partner-specific experience. By introducing company-specific practices that conflict with partner-specific routines that were jointly developed with some partners, the DAF may destroy value in repeated alliances with these partners. Companies that form alliances with a diverse set of partners can benefit from a DAF, but those that repeatedly ally with a select group of partners may not gain from the DAF, and may want to restrict it. ■



THE PAPER

The Contingent Value of the Dedicated Alliance Function
by Melike Findikoglu and Dovev Lavie.



To achieve an effective audit,

Academic research on the role of auditors in guaranteeing accurate financial information is now homing in on demographic composition of auditing teams. A more diverse mix improves the quality: something to keep in mind when selecting a team

by Angelo Diliberto and Angela Pettinicchio @



select a mixed team

Financial reporting plays a decisive role in ensuring the efficient functioning of capital markets, since it is a staple of the decision-making process of investors and stakeholders, which in turn is aimed at optimizing the allocation of savings. The accounting scandals that have swept international markets since the year 2000 show how information asymmetry between companies and markets can arise from incomplete and misleading financial communication, and that it can generate devastating economic impacts.

For this reason, international legislators and academic researchers have focused their attention on the role of auditors in expressing independent judgment on the reliability of corporate information released to the market. The purpose is to study potential tools that can improve the quality and transparency of companies' balance sheets. While academic literature focused on auditing firms at first, in order to determine which of their characteristics could positively influence the quality of the auditing services provided (for instance, consultancy size), over the last decade the level of analysis has gotten more specific, focusing on key offices and, finally, on individual auditors.

In this regard, it was shown that the demographic characteristics of signatory partners, above all their gender, can have a decisive impact on the quality of the audit provided (and, therefore, indirectly, on the quality of financial information disclosed by the client company). It should be kept in mind, however, that

individual auditors do not operate in isolation, since their work is by necessity influenced by the interactions and social dynamics present in work teams. In a recent paper co-written with Mara Cameran, published in *European Accounting Review* in 2018, we have uncovered which key features of auditing teams have a positive impact on the quality and efficiency of company audits. In particular, the data show that a higher percentage of work hours of partners and managers assigned to an audit in the early stages of the consulting relationship has a negative impact on the quality of the audit, while this effect becomes positive as the duration of the relationship with the client company increases. This result can be explained by considering that a higher number of hours assigned to partners and managers corresponds, in relative terms, to a lower number of hours assigned to seniors and staff, which actually carry out most of the technical work. And the focus on technical aspects is of particular importance in the early stages of the assignment, as it is necessary to deepen knowledge of the client being audited. In addition, the diversity of partners and managers in terms of training and gender in the work team has a positive impact on the quality and efficiency of the auditing of financial statements. The results are primarily relevant for auditing companies in terms of their personnel selection policies and organization of their auditing activities.

Furthermore, they have implications for the international bodies which set auditing and accounting standards and in the last few years have underlined the importance of the characteristics of auditing teams for the quality of financial reporting. This could lead to the definition of standards for the selection of individuals that are assigned to the various auditing tasks, in order to increase the quality of external audits on companies' accounts. ■



THE PAPER

An auditing team's composition and impact on reporting is the topic examined by Mara Cameran, Angelo Ditillo and Angela Pettinicchio in *Audit Team Attributes Matter: How Diversity Affects Audit Quality*



Investment in renewable energy sources is overtaking spending on new coal- and gas-fired plants. But it is still too soon to talk about abandoning fossil fuels. Here's why

by Matteo Di Castelnuovo @



MATTEO DI CASTELNUOVO
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In 2017, according to the OECD-affiliated International Energy Agency (IEA), investment in renewable energy plants represented two-thirds of total spending on new generation capacity installed worldwide, surpassing investment in new coal-fired power plants. Not surprisingly, therefore, according to a recent report compiled by UNEP (United Nations Environmental Program) and Bloomberg New Energy Finance, in 2017 alone, about \$160 billion was spent globally to install 98 GW of new solar capacity (+18% compared to the previous year) as compared to the 70 GW added to gas- and coal-powered electricity generation at the cost of about \$70 billion.

Interestingly, \$49 billion of the \$160 billion spent on solar went to build small-scale photovoltaic systems, i.e. a power capacity smaller than 1 MW, mostly for domestic consumption and connected to the grid behind the house meter. Looking at the near future, IEA estimates that between 2017 and 2023 the installed capacity of electricity generation coming from renewable energy sources will increase by 43%, while green energy will increase its share from 25% to 30% of the global electricity generation mix. Despite having recently lost the leadership for investment in renewables in favor of the United States, China and India, Europe maintains the lead in having understood and started the decarbonization of its energy system earlier than the others through policies and incentives aimed at particularly ambitious environmental targets: according to European Commission projections, the share of electricity in the EU coming from green sources will increase from 25% in 2009 to 55% in 2030.

In Europe, the renewable energy revolution since 2009 has gradually undermined the traditional utility model that relied on large gas or coal plants for electricity generation and distribution through the grid to end users. However, this does not mean that traditional power plants must be shut down, as their contribution is still needed for several years to come.

Rewable energy sources still

In fact, as EU countries increase the percentage of energy produced from intermittent renewable sources, they will have a greater need for reserve capacity. In particular, most scenarios see gas continuing to play a critical role in electricity generation for a number of years, both as a substitute for the much more polluting coal-fired plants, and as a reserve buffer when the wind does not blow or the sun does not shine and there is no sufficient storage capacity (e.g. batteries). An analysis of grid operators belonging to ENTSO-E shows the potential risk of energy scarcity in certain Italian areas after 2025.

Therefore several EU countries have introduced capacity remuneration mechanisms, which means that financial incentives are given to operators to guarantee the availability of the power supply in the future regardless of whether the plant has the turbines going or not, in order to ensure energy security. The European Commission has finally approved capacity payment measures put forward by France, Germany, Belgium, Greece, Poland, and Italy. The choice between the various remuneration mechanisms is complex and their implementation must be carefully managed and, especially, monitored, because these are economic tools capable of having a significant impact on the fixed components (not being linked to variable costs) of electricity bills paid by consumers. What's worse, they interfere with the efficiency of the wholesale electricity market. From this point of view, it is positive that the new European Electricity Market Regulation introduces stricter rules on electrical capacity, including a limit to emissions of 550 grams of CO₂/kWh, which effectively excludes the most polluting fossil-fueled plants from the mechanism. The hope is that this EU regulation will contribute to better trade-off between security of energy supplies and reduction of carbon emissions. The Old World has begun the transition towards a more innovative and sustainable energy system, but it will still need help - limited in time and cost - from some of the old carbon-based technology. ■

The time is ripe for energy startups

Carlo Maria Magni, entrepreneur and Bocconi alumnus, sees "still plenty of opportunities in the energy market for technology and services"

by Emanuele Elli @

The renewable energy revolution is gaining speed by challenging the traditional utility models of electricity generation. In Europe the transition is fully underway, according to OECD data compiled by the IEA. But also in the rest of the world, investment in renewables already accounts for the lion's share of new capacity added in power generation. The ReFeel Group, an integrated and independent energy operator founded by three Bocconi alumni a decade ago, understands this well. It works in various countries around the world to provide innovative and sustainable solutions for energy efficiency and the development of renewable sources.

"ReFeel was born a long time ago, from the dream I had at an early age to achieve sustainable self-sufficiency, for example by making things out of found objects," says **Carlo Maria Magni**, Bocconi alum (Class of 1988, Economics), entrepreneur and founder. "The dream then became an ambition when the energy market changed in a revolutionary, disruptive way. We began as a startup and today we are in a number of countries on several fronts, by offering the construction of renewable energy power plants from scratch, as well as management and development of existing electricity generation plants, and new solutions for energy efficiency and sustainable mobility."

need a hand from fossil fuels

→ **What is the approach to renewable energy you have found in developing countries like Colombia, Costa Rica, Panama, etc.?**

Our approach consists in seeking to maximize local potential, not only in terms of market opportunities but also local resources. For this reason, we develop the collaboration between the central team and local ones, because only they are able to interpret and manage the dynamic of the host country. At the moment in Latin America, for example, there is a lot of activity, and renewable energy sources have become the natural answer to growing energy demand. The phenomenon is similar to what happened with the arrival of mobile phones, which enabled developing countries to sidestep the costly laying of landlines. The technical capability and experience are still lacking and there is strong opposition coming from conventional fossil sources.

→ **There are areas, such as mobility, where the issue of renewables is very important, and others where it fails to capture the public's attention. How is your business influenced by the interplay of energy trends, politics, media, and marketing?**

The media mainly care about appealing images: a building's heating system is not catchy, while a beautiful electric car attracts more interest. Latin American media tend to work in the same way, although, in my opinion, the low quality of Italian media and of people's communication on social

media is worrying, and even more so is the level of functional illiteracy, which is the worst in Europe. Having said that, I believe that people really want greater sustainability, understood as



CARLO MARIA MAGNI
Managing Director of ReFeel, 44. In 1998, Magni earned a Political Economy degree from Bocconi and wrote his thesis at the World Bank in Washington DC, developing an algorithm that calculated how long it takes new technologies for the production of renewable energy sources to become competitive. This opportunity had a huge impact on my future career goals. Today I am fortunate enough to be doing what I dreamed of at age 20: to bring the best sustainable energy solutions to developing countries.

My experience at Bocconi has given me important and formative friendships. I have friends all around the world, some of them I have known for years. Being able to compare notes with people you've known for 25 years is a fantastic opportunity. My partners at ReFeel, who are also friends, went to Bocconi too. Sharing success and good times, as well as overcoming the tight spots, is even more rewarding because there are three of us. In terms of training, I have to thank Prof. Tito Boeri, who helped me go to the World Bank and gave me the unforgettable experience of teaching a few lessons at university. And I must mention Prof. Remy Cohen, who was my biggest sponsor. We have remained in touch since my very first internship."

cleaner air and water, and, more generally, a world that can be hospitable to and habitable by future generations. Today, the world's cities, where 50% of the global population is concentrated, are becoming increasingly inhabitable. The planet is becoming less and less welcoming, as an unpredictable and dangerous climate crisis looms over the horizon. Renewables can make the difference and improve the situation. Zero-emission mobility is certainly one way to get there, but there are many other areas where policy and businesses can have beneficial impacts.

→ **From your point of view, therefore, is renewable energy still an area where new startups and business ventures can emerge?**

The renewable energy market, and more broadly energy sustainability, is a huge and constantly changing industry. There are plenty of business opportunities in areas such as: market expansion of technological solutions already being tested; development of new service models in a market that is changing the traditional distinction and dynamic between producer and consumer, by evolving towards Prosumer Energy Systems; energy optimization as service to the final user that needs to be enhanced in terms of advanced integration and environmental comfort (Energy Performance Contracts); the increasing availability of data to make energy systems more responsive/ adaptive (Smart Energy Systems).

→ **How does renewable energy affect the business models of new operators entering the market compared with industry incumbents relying on conventional sources?**

Renewables can be integrated in a world refusing to be divided into different areas of production, commerce, recreation, and habitation. In my view, our society is looking for something more varied, and is less willing to sacrifice scarce land for economic function. Renewable energy sources make this increasingly feasible. Thanks to their low environmental impact and modularity, these sources allow distributed energy production, while minimizing the need to connect electricity generation plants with final demand by way of kilometers of power cables. In this, energy is a bit like tomatoes: growing them in China so that they can be eaten in Milan is something that doesn't really make any sense. ■



EVERYONE MATTERS

Maria Carmela Ostilio
Alumna, 1987.

Bocconi Alumni and Bocconi University come together and join forces to expand our global reach and spread our values. Knowledge, global network, spirit of innovation, dialogue will continue to guide us. Today, more than ever, every alumnus makes a difference, every new idea is one more step towards new goals, every contribution is important for the enrichment of all. Want to be part of this? Join us at bocconialumnicommunity.it

#KnowledgeThatMatters

Digital music opens up pop



charts to more new artists

Compared to the days of vinyl or CD, in the era of digital music a greater number of artists are reaching the charts. But the top spots are still dominated by just a few

by Andrea Ordanini @

Music consumption has undergone one of the deepest transformations of all industries in the last thirty years. It has progressively changed from a market where content was sold as a physical good (vinyl records) purchased and owned individually, to one where the physical support has disappeared and recorded music, now in digital format, is no longer owned by the listener, who only pays for the right of access to a large catalog of music content (e.g. Spotify).

This phenomenal technological transition did not happen overnight. The music market went through several phases over the last thirty years: the vinyl record dominated production and consumption until the early 1980s, when it was replaced by the compact disc. Then in 1999, in an innovation introduced by an American student, Napster made it possible for users to listen to music for free through the sharing of the music files stored on their hard disks via the Internet.

The recording industry fought back with a long series of lawsuits for copyright infringement. Then in 2004 a new operator (Apple) entered the market and proposed a legal way to consume and purchase music in a digital format: paid downloads. And since the early 2010s, music consumers no longer have to buy and download music files, but simply pay for access to individual songs, records, compilations, and enjoy fruition of endless online catalogs without obtaining ownership of content. This Copernican revolution in music consumption technology has dramatically changed the scenario



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for record companies. But how has the attitude of companies changed towards the "content" of music? In other words, has technology also changed the processes of artistic selection, offer and promotion of artists?

A study focusing on Billboard charts from 1974 to the present day has revealed that the digital transformation introduced at the turn of the 2000s has increased market differentiation in the pop music industry, as reflected by the larger number of songs which made it to the charts in this sub-period. In essence, the advent of Internet technology seems to have increased the chances of success for individual artists, thus "democratizing" popularity to a degree.

The increase in content differentiation has gone hand in hand with another phenomenon, also connected with technological change: the rise of the artistic collaboration known as "featuring" (feat.), i.e. the presence of "guest" artists singing and/or playing in other artists' pop songs. Looking at the US charts, "featuring" seems to have facilitated the success of a larger number of musicians, and it works better when it combines artists coming from two different musical genres.

Despite signs of greater openness and differentiation generated by the digitization of music, when we repeated the same kind differentiation analysis, narrowing it down to the Top 10 Hits in the Billboard charts, we found there was not the same decrease in variance over the period considered. This means that when it comes to major hits and most popular artists, technology has not fundamentally changed the mechanics of access to pop stardom: the new digital format has allowed a greater number of songs and music artists to enter the market for pop hits, but there has been no equally enlarged access to the top positions of music rankings, which have remained the prerogative of a few big hits by few big stars.

If we wanted to sum up all this in a sentence, we could say that technology has significantly changed music consumption and differentiated the forms of access to the music market, but has only marginally changed the percentage of artists finding success. There hasn't really been a change of tune at the top of the charts. ■

THE PAPER

From Fewer Blockbusters by More Superstars to More Blockbusters by Fewer Superstars by Andrea Ordanini and Joseph Nunes.



THE PAPER

The "Featuring" Phenomenon in Music: How Combining Artists of Different Genres Increases a Song's Popularity by Andrea Ordanini, Joseph Nunes and Anastasia Nanni.





Superpowers for loyal share

With the introduction in 2014 of loyalty shares awarding extra voting rights, controlling shareholders can now dominate an EGM

by Chiara Mosca @



CHIARA MOSCA
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Starting in 2014, Italian listed companies, or at least some of the 300 that are publicly traded, started to look at ways to reward their shareholders. But it was not, as often happens, in the form of an extra dividend, perhaps tied to exceptional business performance. They opted instead for the strategic choice of rewarding shareholders loyal to the company.

And in spite of the obvious capitalist logic which drives the normal operations of joint-stock companies, the premium in question is not a monetary one. In fact, the decision that many companies have considered, and some have implemented, was to include a clause in the corporate statutes to reward a certain class of shareholders by giving them extra powers. What does the loyalty of an investor consist of? The shareholder who believes in the company stays in for the longer term. The long-term shareholder pursues a buy-and-hold investment logic in contrast with those who seek short-term returns on equity markets. Thanks to a base represented by loyal shareholders, chief executives are free to pursue value-creation strategies and invest in innovation and R&D, without undergoing excessive market pressure.

And what is the premium? The premium, really, is superpower. In terms of corporate law, it means being able to "weigh" more in shareholder meetings, or having additional votes when, for example, appointing directors or approving financial statements.

The question was posed in 2014. That was the year, as some may recall, when Fiat Chrysler Automobiles CEO Sergio Marchionne, chose to relocate the company's HQ to the Netherlands, partly because the Dutch system allowed a "loyalty" premium to assign more than one vote per share.

The reaction of the Italian government, worried that other companies could follow suit, was not long in coming. With a decree passed in the summer of 2014, loyalty shares were introduced for listed companies, consisting of a mechanism based on the registration of shareholders who could double their voting rights if they held onto shares for more than twenty-four months. The premium



holders no longer a novelty

does not have any (direct) economic value, as it cannot be transferred, and expires when shares are sold. The mechanism is comparable, in all respects, to a control-enhancing mechanism (significantly strengthening the power of those who already have controlling stakes in the company), but subjected to some sunset clauses (such as forfeiture in the event of a sale).

To tell the truth, if one looks at the international scene, double voting rights are not an Italian novelty.

A similar loyalty award has existed in France since 1933, and was recently transformed (in 2014) into a rule that is automatically valid for all companies, unless a different corporate governance choice is made.

But it is still difficult to deny that this is revolutionary in corporate democracy. While in politics weighing votes according to voters would be taboo, European business (in France, Italy and recently in Belgium) is experimenting with instruments that, bypassing the one share-one vote rule, assign more votes to loyal shareholders who are more invested in the growth of the company.

In Italy, the measure has by and large been successful. There are currently 45 listed companies that choose to reward long-term shareholders (according to CONSOB figures). The empirical analysis shows that, in almost all cases, these are companies where controlling shareholders have acquired, or are set to acquire, voting superpowers.

In particular, from an analysis conducted on the companies that had adopted double voting rights by October 2018, it emerges that this has allowed controlling shareholders to dominate not only ordinary shareholder meetings but, in many cases, also extraordinary ones. ■



THE PAPER

Should Shareholders Be Rewarded for Loyalty? European Experiments on the Wedge Between Tenured Voting and Takeover Law, by Chiara Mosca.



Who are your heroes and who else would you be if you could? What film reminds you most of your on campus years? If Bocconi were a dish, what would it be? These are some of the ten out-of-the-box questions that we asked Chapter Leaders, Topic Leaders, and Class Leaders of the Bocconi Alumni Community. The result is a very very special edition of the Questionnaire.

Alumni leaders confess the

If you weren't yourself, who would you like to be?

- An animal. (Sandra Donelli)
- A rock star! But the truly inspiring type - the kind of popstar that keeps making good music year after year, without indulging in drugs or other forms of excessive behavior. A bit like Bruce Springsteen, to name one. (Vittoria Villa)
- Bill Gates. (Paola Berton)
- Oscar Farinetti. (Fabrizio Iaconetti)
- I would like to be a musical dancer. (Francesca Paolino)
- I like the way I am, I wouldn't trade places with anybody. (Stefano Modena)
- Robby Naish at 30. (Marco Guazzoni)
- I would like to be a vintner and see my vineyards prosper from the top of the hill. (Claudio Zamagni)
- Roberto Mancini. (Francesco Arduini)
- I'd like to be either a musician or producer of Eastern Mediterranean music. (Kerim Gurkan)
- The leader of a country (but only for a limited time - I love to have a private life). (Pietro Macchiarella)
- Somebody who significantly contributes to the sustainable well-being of people. (Andrea Carissimo)
- Thomas More. (Giovanni Di Francesco)
- An actor. (Giulio Saitta)
- Mario Draghi, who had the lucidity and resolve to weather the perfect storm with his "whatever it takes." (Ferdinando Ferrari Bravo)
- Someone who left the

world a better place than he found it. (Paolo Barbanti)

→ A policymaker. (Fabrizio Sechi)

→ President of the "United States of Europe" (i.e. of a economically and politically fully integrated European Union). (Umberto Prandi)

→ A pianist. (Maurizio Cohen)

Music, books and movies: which ones do you associate with your Bocconi student years?

→ The book *Marketing & Control* by Richard M. Wilson and Antonella Cugini. (Donelli)

→ Music by Iggy Pop. It talks about a female leader in an ironic, iconic, assertive and light yet meaningful way - like Bocconi shows us we can be. (Vittoria Villa)

→ *Dead Poets Society*. (Bertone, Francesco Cometa, Fabrizio Sechi and Anita Lombardi)

→ *An Officer and a Gentleman*. (Iaconetti)

→ Queen. When I was studying finance at Bocconi, I had no time for reading books other than textbooks. Movie: *The Wolf of Wall Street*. (Paolino)

→ Dire Straits and the movie *9½ Weeks*. (Modena)

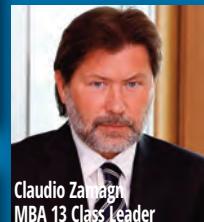
→ *Avengers*: ready to save the world working as a team. (Guazzoni)

→ *Zen and the Art of Motorcycle Maintenance* by Robert Pirsig, while listening to Concerto Pour la Main Gauche by Maurice Ravel. (Zamagni)

→ *Chariots of Fire*. (Valeria Verdini and Barbanti)



Andrea Carissimo
Madrid Chapter Leader



Claudio Zamagni
MBA 13 Class Leader



Anita Lombardi
EMBA 8 Class Leader



Elisabetta Pero
Legal Topic Leader



Francesco Arduini
MBA 35 Class Leader



Fabrizio Iaconetti
MBA 16 Class Leader

→ The Italian pop artists Ligabue and Samuele Bersani. (Arduini)

→ *Forrest Gump*! A fantastic movie that I watched with my college sweetheart.

Also a reminder that we always have to run. (Roberto De Meo)

→ *Rocky*, the soundtrack. I used to play it over and over during the last rush ahead of finals. (Macchiarella)

→ The management book *Blue Ocean Strategy*. (Sveva Polispermi)

→ The movie *Zeitgeist*

Addendum. (Paolo Lombardi)

→ *The Rocky Horror Picture Show*. (Andrea Carissimo)

→ *Don't You Forget About Me* by Simple Minds. (Di Francesco)

→ Music: The soundtrack to *Trainspotting*. Book: *Blue Ocean Strategy*. Film: *The Big Short*. (Ferrari Bravo)

→ The book *Be Stupid* by

Renzo Rosso.
(Jacopo Cecchi)

Of all the people you met through Bocconi, whom would you travel with and where to?

→ With Mario Monti to New York. To uncover the hidden secrets of the world of finance. (Donelli)

→ My classmates! I would be fine to go anywhere with them as long as we are together. I guess they'd opt for

somewhere warm and nice, with beaches and cocktails and lots of music. (Villa)

→ With Gianmario Verona to Silicon Valley. (Iaconetti)

their passions to Ferdinando

- The whole gang of Bocconi alumni leaders! I'd take them to Dubai. (*Paolino*)
- With my girlfriend Simonetta to Southern Sardinia (Teulada Cape), to have her unwind and smile a bit. (*Zamagni*)
- All my classmates. (*Verdini*)
- Vincenzo Dedè, my classroom pal. (*Arduini*)
- I'd take my dear MBA colleague Adam Adamoski to Naples to watch *La Traviata* at San Carlo theater. (*Gurkan*)
- I met two of my best friends in Bocconi. I would take both of them for a fun-filled week on a beach in Mexico. (*Macchiarella*)
- Marco Dellernia, in Argentina.



Ferdinando Ferrari Bravo
EMBAS 14 Class Leader



Francesca Paolino
Arabian P. Chapter Leader



Francesco Cometa
Frankfurt Chapter Leader



Giulio Saitta
EMCFB 5 Class Leader



Jacopo Cerci
Boston Chapter Leader



Kerim Gurkan
Istanbul Chapter Leader

(*Di Francesco*)

- Prof. Biaggi because he was so interesting to listen to. (*John Taylor*)
- All together to Miami. (*Saitta*)

→ Riccardo on a sailing boat in the Mediterranean and Domitilla in the Alps without Internet connection. (*Ferrari Bravo*)

- Prof. Giorgio Invernizzi and his “polenta recipe.” I'd travel with him everywhere, to discover how versatile his metaphor is for business. (*Anita Lombardi*)
- With my classmates travelling... Back to the Future! (*Barbanti*)
- Gianfranco Minutolo to the Far East, for networking and development. (*Sechi*)
- I would take Giovanni Soltoggio to Argentina. (*Prandi*)

What if Bocconi were a dish?

- Parmigiana, my favorite dish.

(*Elisabetta Pero*)

- Salmon with chives. (*Donelli*)
- Caviar. (*Anthea Spuri Zampetti*)

→ Pizzaaaa!!! It is Italy's and the world's favorite food. It is deceptively simple to make, with only three ingredients, but it's good, nutritious, and healthy as long as the ingredients are genuinely fresh. Bocconi is the best pizza. (*Villa*)

- Whole wheat penne with tomato and basil. Good and perfect in their simplicity. (*Iaconetti*)

→ Sorrento-style gnocchi! A simple and delicious dish where the end result mainly depends on the quality of the ingredients! (*Paolino*)

- Penne arrabbiata. (*Cometa*)

→ Milanese risotto with ossobuco: a bit heavy, but so good. (*Zamagni*)

- Sage-and-butter ravioli. (*Arduini*)

→ Tajarin with white truffles - timeless distinction. (*Gurkan*)

- A tasty fusion combination. (*De Meo*)

→ Steak with fries. (*Macchiarella*)

- Mixed salad. (*Lombardi*)

→ The finest starter, creating appetite for the rest of the course. (*Kyoko Shinonaga*)

- Timbale of macaroni, full of surprises. (*Carissimo*)

→ Filet mignon à la moutarde. (*Di Francesco*)

- A lasagna dish. (*Saitta and Barbanti*)

→ Surely a club sandwich: it's cosmopolitan (you can find it anywhere), nutritionally complete and balanced. (*Ferrari Bravo*)

- Polenta served with many ideas and connections, of course. (*Anita Lombardi*)

→ A fusion recipe. (*Fabrizio Sechi*)

- Tiramisu. (*Prandi*)

Who is your hero? And while you were a Bocconi student?

- I look up to no heroes. (*Donelli*)

→ Julius Caesar. Christopher Columbus. After studying at Bocconi, Mario Draghi. Self-made people, managers, *condottieri*, visionary, ironic, attractive. Leaders. History will decide about Draghi, but it already gave its verdict on Caesar and Columbus. (*Villa*)

- John F. Kennedy. At Bocconi, Vittorio Coda. (*Iaconetti*)

→ Audrey Hepburn! (*Paolino*)

- Sergio Marchionne and Steve Jobs. (*Guazzoni*)

→ Hans Rosling, author of *Factfulness*, a beacon of light in the current ignorance and darkness. But my hero was Prince during my student years. (*Zamagni*)

- Yvon Chouinard (Patagonia), for turning his passion into a responsible business. (*Gurkan*)

→ Mario Draghi, ever since the time he met with us Bocconi students. (*De Meo*)

- Silvio Berlusconi. In spite of all his flaws and recent mishaps, he's the best entrepreneur Italy has ever seen. (*Macchiarella*)
- Batman. (*Lombardi*)
- Andreina Longhi, founder and CEO of Attila. (*Shinonaga*)

→ Superman. (*Saitta*)

- Until college it was Dylan Dog, the horror detective, then it became vice president Al Gore because he was the first to put climate change and the greenhouse effect at the forefront of the political agenda. (*Ferrari Bravo*)
- At Bocconi, my hero was Robert Swanson, the visionary founder of Genentech. (*Barbanti*)



What are you most proud of in your private life?

- My family. (*Pero, Guazzoni*)
- Myself. (*Donelli*)
- My daughter. (*Spuri Zampetti, Arduini and Sechi*)
- To have been true to my values: honesty, correctness, self-improvement. I love Bocconi because it mirrors my values. (*Villa*)
- My son. (*Bertone*)
- My family, and my integrity and authenticity. (*Iaconetti*)
- My communication skills and the good care I take of my friends (also the other way around). (*Paolino*)
- All the experiences I had all across Europe. (*Cometa*)
- My wife and children. (*Modena*)
- A stable family, sensible children and plans for the future with my wife. (*Zamagni*)
- My family relations: a loving wife, a beautiful daughter, my relatives and having a close friendships all over the world. (*Gurkan*)
- That I managed to move out of Italy and built a successful life in the US. (*Macchiarella*)
- Whenever, besides family,

friends and an interesting job, I need to take care of the Bocconi Alumni Community and be taken care of by them. (*Shinonaga*)

- My children. (*Carissimo*)
- My two children. (*Di Francesco*)
- Having travelled and lived in many countries. (*Taylor*)
- Freedom. (*Saitta*)
- Seeing many of my dreams as a child come true. (*Ferrari Bravo*)
- My daughter. Intelligent, resilient, cheerful. She is my splendid spur. (*Anita Lombardi*)
- Not having forgotten where true lifetime values lie. (*Barbanti*)
- Family and friends. (*Cecchi*)
- Developing a global network of friends with my wife and children. (*Prandi*)

And in your professional life?

- My achievements. (*Pero*)
- Growth of the people on my staff. (*Donelli*)
- The achievements made without nudges. (*Spuri Zampetti*)
- That I did it all by myself (with the help of talents God gave me). I like Bocconi because it gives you the skills

and assets to do it. (*Villa*)
 → That I treat my customers with humility. (*Bertone*)

- Of my manifold passions and that I like challenges (even too much). (*Iaconetti*)
- My tenacity. (*Paolino*)
- The resilience I developed thanks to many job experiences. (*Cometa*)
- The willingness to go out there and get your hands dirty. (*Modena*)
- My past experience as General Manager. (*Guazzoni*)
- My company - inspired by adult learning - like Vincenzo Perrone taught me. (*Zamagni*)
- The position I hold. (*Arduini*)
- I started a business with my dad and managed to sell it after 5 years. It was great to be able to develop it from scratch, work together and finalize it with a reward. (*Gurkan*)



Maurizio Cohen
Monaco Chapter Leader



Kyoko Shinonaga
Tokyo Chapter Leader



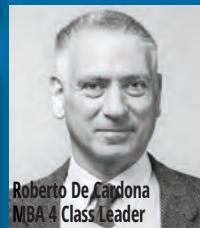
Paolo Barbanti
MBA 15 Class Leader



Pietro Macchiarella
Dallas Chapter Leader



Marco Guazzoni
EMBA 3 Class Leader



Roberto De Cardona
MBA 4 Class Leader



Paolo Lombardi
MBA 30 Class Leader

- Experienced a successful international career working in 4 different countries. (*Macchiarella*)
- That I saved my colleagues' jobs when my bank's parent company asked me to close the branch and fire everyone. (*Roberto De Cardona*)
- My adaptability. (*Carissimo*)
- Having created my own business. (*Di Francesco*)
- Owning my own company, my free time. (*Taylor*)
- Independence, loyalty. (*Saitta*)
- That I keep reaching the new goals I set for myself. (*Ferrari Bravo*)
- I'm in my third

professional life, who knows? (*Lombardi*)

→ Having helped somebody achieve their dreams. (*Barbanti*)

→ The professional growth of my collaborators. (*Fabrizio Sechi*)

If you were a character in a fairy tale, which one would you like to be?

→ Avatar. (*Donelli*)

→ Peter Pan. (*Spuri Zampetti and Guazzoni*)

→ Heroines usually end up tragically. I prefer true-life models, like Christine Lagarde. (*Villa*)

→ The Lion King. (*Iaconetti and Arduini*)

→ Ariel, the little mermaid. (*Paolino*)

→ Prince Charming. (*Modena and Saitta*)

→ Jack and the beanstalk he uses to climb the sky, face the giant and bring prosperity back to his country. (*Zamagni*)

→ Simba from The Lion King - it's all about having the courage to come back! (*Gurkan*)

→ The Ugly Duckling. (*Macchiarella*)

→ Eikichi Onizuka. (*Lombardi*)

→ Alice in Wonderland. (*Di Francesco*)

→ Quasimodo, the hunchback of Notre Dame, to restore the church after the 2019 fire. (*Ferrari Bravo*)

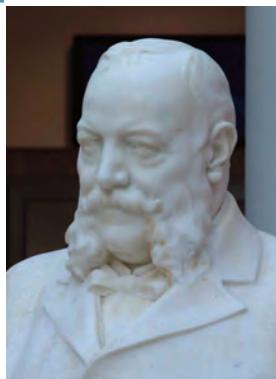
→ Tom Thumb: he learns to use his intelligence, sight and ears to improve the lives of himself and his loved ones, which is cool. (*Anita Lombardi*)

→ The protagonist in *Master and Commander*. (*Barbanti*)

What could you never do without?

→ Nature. (*Donelli*)

→ Traveling. (*Spuri*)



Zampetti)

→ Myself. (*Villa*)

→ Playing. (*Iaconetti*)

→ Music. (*Paolino*)

→ The sun and the sea. (*Cometa*)

→ A good whisky. (*Modena*)

→ Sports. (*Guazzoni and Carissimo*)

→ My watch and an astronomy map to tell about constellations while lying on the grass. (*Zamagni*)

→ Inter football team. (*Arduini*)

→ Dignity. (*Gurkan*)

→ A good book in my backpack (yes, I dig books on paper). (*De Meo*)

→ The Internet!

(*Macchiarella*)

→ Internet neutrality. (*Lombardi*)

→ Traveling across various cities to discover things that are different and taste the cuisine. (*Shinonaga*)

→ Integrity. (*Taylor*)

→ Setting challenging objectives for oneself. (*Saitta*)

→ A good espresso (no sugar) reading the newspaper, possibly looking out at the sea. (*Ferrari Bravo*)

→ Coffee, the sea, a book, my Mac. (*Lombardi*)

→ The values I was taught. (*Barbanti*)

→ My dearest friends. (*Sechi*)

→ Family and friends. (*Prandi*)

For you, Bocconi is...

→ Knowledge. (*Donelli*)

→ A network. (*Spuri Zampetti, Guazzoni and Saitta*)

→ A Bocconi MBA was one of my dreams which I had the luck to achieve. To me, Bocconi is a place where dreams become possibilities and you gain the skills to turn them into reality. (*Villa*)

→ A lifetime chance and a global business card. (*Bertone*)

→ A living community and an idea factory. (*Iaconetti*)

→ My adoptive Italian family accompanying me around the world. (*Paolino*)

→ Achieving one's dreams. (*Cometa*)

→ Giving back. (*Cohen*)

→ The pillar of my culture and education. (*Modena*)

→ Bocconi has been an elevator for upward mobility. Bocconi gave me a lot and I shall be forever grateful. (*Zamagni*)

→ Home. (*Verdini*)

→ A growth accelerator. (*Arduini*)

→ A core part of my identity. (*Gurkan*)

→ The original launch ramp

that kickstarted all the successes in my life. (*Macchiarella*)

→ "The School." (*Lombardi*)

→ A door open to the blue sky. (*De Cardona*)

→ A hub of personal and career stimulation. (*Shinonaga*)

→ My second mummy. (*Di Francesco*)

→ School of life, source of inspiration, and pool of friends. (*Ferrari Bravo*)

→ A stream that channels passionate and diverse ideas, and leads to open waters of opportunities. (*Anita Lombardi*)

→ A place I have never left behind. (*Barbanti*)

→ A source of inspiration and an occasion for debate. (*Sechi*)

→ Italian excellence (*Cecchi and Prandi*). → Personal growth, training, networking. (*Polispermi*)



SDA BOCCONI FLIES HIGHER IN EUROPE: WE ARE NO. 3

The rise continues. SDA Bocconi School of Management and Bocconi University fly together to the upper reaches of the 2019 Financial Times' Best European B-School Rankings by gaining third position.

This is the crowning achievement of an extraordinary time for our School, full of tremendous steps forward and global recognitions, on the eve of our futuristic new Campus' Grand Opening.

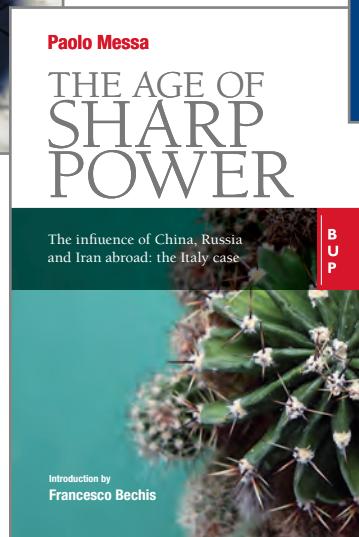
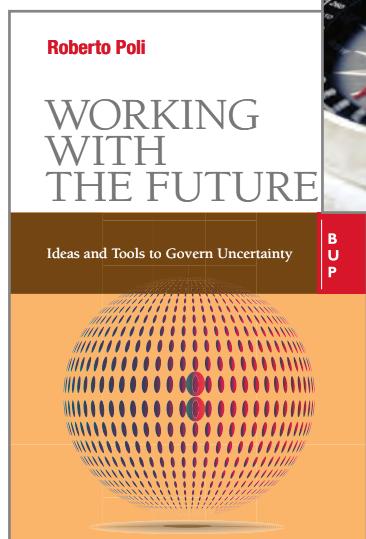
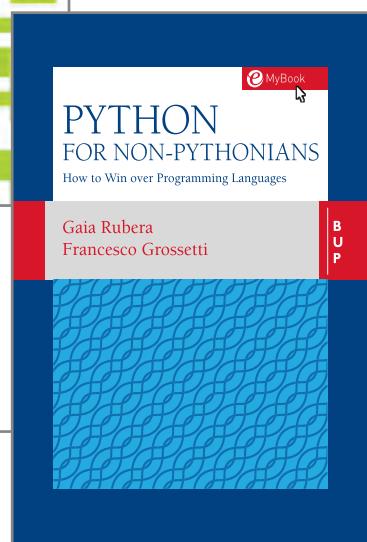
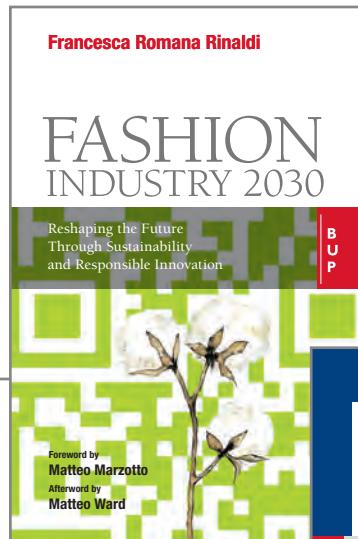
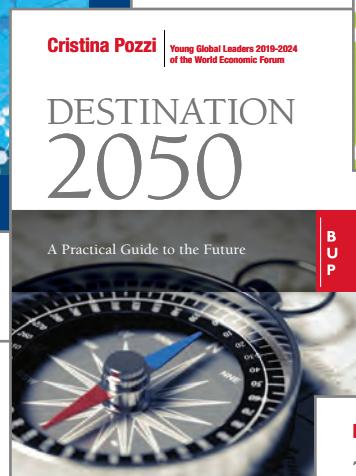
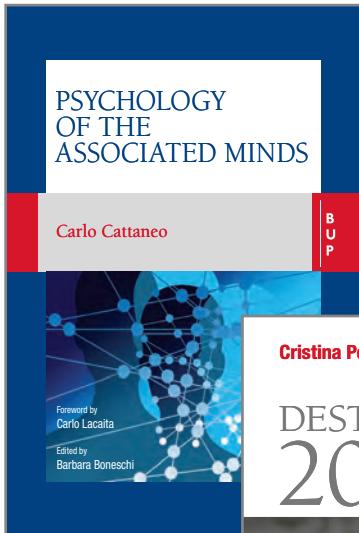
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