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BOCCONI UNIVERSITY, KNOWLEDGE THAT MATTERS

Issue 4 / 2022
ISSN 1828-6313

Deglobalization, crisis of democracy, nationalism and war are interconnected trends reshaping the world. What is current geopolitical instability leading to?

The new world order


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CONTENTS

Issue 4 / 2022
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Registered at Court of Milan numero 844 del 31/10/05

Thank yo

The address for the Academic Year Opening Ceremony by Rector Gianmario Verona

Video gallery

Photo gallery

After six years, Professor Gianmario Verona's rectorate comes to an end with the inauguration of the 2022/23 academic year. Complexity, innovation and sustainability are the keywords that have guided his mandate and that helped the university to continue to grow under the banner of internationalisation and inclusion.
"To my successor, Prof. Francesco Billari, " said Verona, "the warmest "Best of luck!". To lead Bocconi, relying on a community that is open, ready for challenges and aware of its responsibilities is, first of all, an honor"

u Bocconi

Professors

Increasingly inclusive, broadening in disciplinary interests and international in scope, the faculty is aga

WHO THE NEW PROFESSORS ARE AND WHERE THEY COME FROM

Marco Battaglini, *Cornell University, Department of Economics, Full professor*
Luca Braghieri, *Ludwig Maximilian University of Monaco di Baviera, Department of Decision sciences, Assistant professor*
Francesca Buffa, *University of Oxford, Department of Computing Sciences, Full professor*
Maurizio Cohen, *Department of Law, Adjunct professor*
Sarah Eichmeyer, *Ludwig Maximilian University of Monaco, Department of Economics, Assistant professor*
Brady Garrett Levy, *London Business School, Department of Management and Tecnology, Assistant professor*
Katrin Goedker, *Maastricht, School of Business and Economics, Department of Finance, Assistant professor*
Jessica Kim, *Rady School of Management, Department of Marketing, Assistant professor*
Clement Mazet-Sonilhac, *Banque de France, Department of Finance, Assistant professor*
Marc Mézard, *École normale supérieure, Department of Computing Sciences, Full professor*
Debora Nozza, *Bocconi, Department of Computing Sciences, Assistant professor*

that matter

in enriched this year by 25 new members. To all, welcome to Bocconi and all the best for their work

Eleonora Patacchini, *Cornell University, Department of Economics, Full professor*
Laurent Poirrier, *Department of Computing Sciences, Adjunct professor*
Mislav Radic, *UCL School of Management, Department of Social and Political Sciences, Assistant professor*
Luca Saglietti, *Ecole Polytechnique Federale de Lausanne, Department of Computing Sciences, Assistant professor*
Laura Sanità, *Eindhoven University of Technology, Department of Computing Sciences, Associate professor*
Alessandro Sanzeni, *Duke University of Durham, Department of Computing Sciences, Assistant professor*
Andrei Savochkin, *Department of Decision sciences, Adjunct professor*
Ksenia Shakhgildyan, *Department of Economics, Adjunct professor*
Renu Singh, *Department of Social and Political Sciences, Adjunct professor*
Jakob Blaabjerg Ahm Sorensen, *Copenhagen Business School, Department of Finance, Assistant professor*
Iris Steenkamp, *London Business School, Department of Marketing, Assistant professor*

Studying the genome? Lik

That is how Francesca Buffa, Full Professor at the Department of Computing Sciences, describes her work, a perfect example of the integration of artificial intelligence and machine learning with physical, natural and social sciences

by Emanuele Elli @

"Today we have very advanced computational techniques available, but to solve complex problems it is necessary to create and teach a new approach which must be multidisciplinary by necessity". Francesca Buffa, a new entry among the tenured faculty of the Computing Sciences department, explains the ultimate reason for the intellectual melting pot that is giving life to the latest Bocconi research outpost. She graduated in Theoretical Physics from the University of Turin, specializing in computational sciences, and until a few months ago she was Professor of Computational Biology and Cancer Genomics at Oxford. Her work is the demonstration of the extent to which artificial intelligence and machine learning can be integrated with the physical, natural and social sciences to open new frontiers of research.

LEGGI L’ARTICOLO IN ITALIANO

e the first voyage into space

FRANCESCA BUFFA is one of the new full professors of the newly established Department of Computing Sciences, where she coordinates the Artificial Intelligence laboratory. Internationally renowned researcher, she comes from the University of Oxford, where she was Professor of Computational Biology and Cancer Genomics. She is Principal Investigator of an ERC Consolidator Grant for the development of computational methods for the study of complex diseases, a grant from the Invernizzi Foundation awarded in the context of an ERC Call by the Cariplo Foundation, and a very recent grant from the Celeghin Foundation. The latter also involves Pisa University Hospital and the Pisa Foundation for Science in the study of the biomarkers of patients suffering from glioblastoma, one of the most aggressive brain tumors. “At Bocconi I have found an international environment and a speed in organizational systems that are at a par with the best Anglo-Saxon universities. In these weeks I have never felt out of place: I personally experienced the strong determination to work on important issues and a great ability to open up to new things and integrate them. I’m sure Milan will be equally welcoming to my family: my husband and our three children are moving here from Oxford to join me soon.”

➜ *When you chose to study physics, would you ever have imagined working together with doctors and biologists?*

Maybe not when I was at university, but the application of my studies to medical sciences is not something that happened to me by chance, it is a path that I chose at a precise moment, which I remember very well. When the sequencing of the human genome was published in Cambridge in 2001, I was in London for a PhD in Applied Mathematics and, like other scientists, I felt an instinctive attraction for this new world. For us it was like the first trip to the moon, the discovery of an unexplored universe and a frontier of knowledge that opened up before our eyes. It was a very emotional moment and I immediately decided that this would be my next challenge.

➜ *In your most recent research, which you began in Oxford and will continue at Bocconi, the techniques of computational science are applied, for example, to the treatment of glioblastoma. What are the prospects and objectives?*

One of the main obstacles to the development of new therapies for this aggressive form of brain tumor is represented by the scarcity of biomarkers to guide the development of new drugs. The idea is therefore to follow the patients before and after the therapies, which unfortunately often are not completely effective, by measuring the RNA circulating in the blood and trying to understand the relationship between ionizing radiation, tumor progression and the genome of patients. These are complex data, which involve numerous variables and must also be integrated with imaging data from MRI or PET scans. Machine learning methods are indispensable at all stages of the analysis, to map these data, clean them up, understand and integrate them, and finally arrive at a kind of modeling that helps us predict which patients will respond to the treatment.

➜ *The value of such a branched and multidisciplinary study, therefore, is not only realized at its conclusion...*

The understanding of these data takes place in progressive steps and by bringing together knowledge that comes from different scientific environments and biomedical applications. For example, we can start from information coming from cell cultures using new techniques such as CRISPR that allows us to "turn off" genes one at a time and measure the cellular reaction. We can then measure these reactions and understand in more detail how cells change. There are numerous biobanks that combine data and genetic profiles of healthy individuals to understand how likely they are to develop certain diseases and possibly activate large-scale screening programs without necessarily sequencing the entire genome of individuals. But it is also possible to build computational models to understand the stages of the development of a disease, to simulate its progression or the response to a drug treatment. The results we see in modern medicine, in all fields, including vaccines, would not be possible, especially in such a compressed timespan, without the help of computing sciences and without a scientific community composed of computer scientists, biologists, physicists, mathematicians and doctors willing to work together. Today knowledge can travel in all possible directions as never before.

➜ *How is all this taught to the younger generations?*

In my training I have been in contact with very diverse areas and modes of study and I try to replicate this wide view by creating occasions in the classroom that are set up as discussions where there is dialogue between as many voices as possible. My first taste of teaching at Bocconi with the AI Lab put me in contact with a group of students who were very prepared and very eager, and for whom this open approach to contamination seemed absolutely natural. None of them were in the classroom just to learn techniques, they all posed questions that went beyond specific examples and animated discussions that sometimes went to a very high level.

➜ *Women and STEM subjects: is there really a complicated relationship between the two? What situation did you find in the English or Japanese universities you attended?*

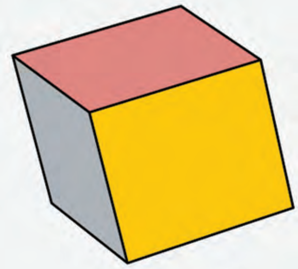
The problem of a weaker female presence in STEM degrees is everywhere. In countries such as England, where the gender imbalance on scientific degrees is less than in Italy, there is an equally strong gender gap between most senior positions, such as department heads. To achieve a cultural change that allows girls to dive more courageously into these disciplines, it is necessary to renew primary education in elementary and middle schools. If I think about my experience, I consider myself very lucky, not only because I had excellent teachers but because I had parents who supported me in my studies and helped me to be free to make my choices. It was my mother, a philosopher, who actually encouraged me to pursue my passion for science and physics! ■

THE DEPARTMENT

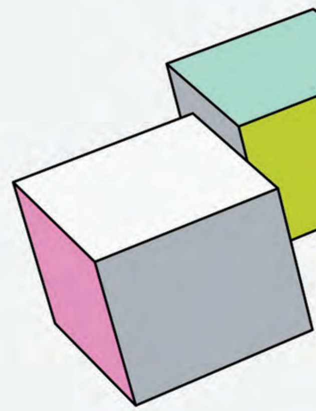
The Bocconi Department of Computing Sciences aims to preserve, disseminate, and expand the body of knowledge relating to computation and become a premier European center for interdisciplinary research in computing.

THE ERC GRANT

The 'microC' project aims to use multi-agent modelling and machine learning to model disease-host interactions in complex diseases such as cancer. The goal is to develop models able to predict which patient will be responding to which treatment.



The new world order



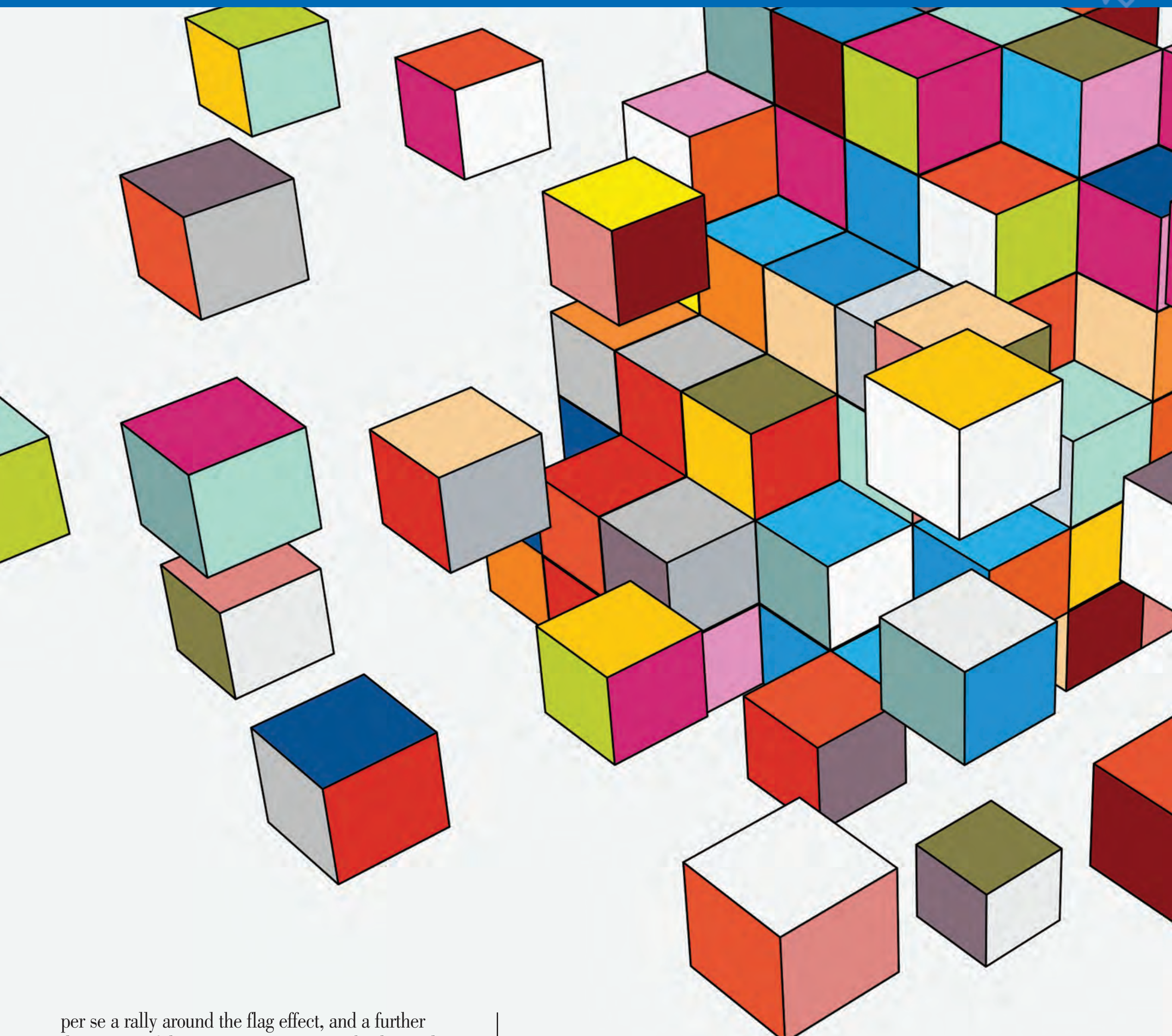
Deglobalization, crisis of democracy, mounting nationalism, and war are interconnected trends which are reshaping geopolitical boundaries. On the horizon, we can see emerging a two-bloc system with unstable borders and low deterrence, not a setting that invites to look at the future with optimism

by Massimo Morelli @

Economists and political scientists talk about a geopolitical transformation along three dimensions: deglobalization (a reversal of globalization and economic integration trends); democracy crisis (autoritarian trends and the end of the "end of history"); nationalisms and division in new blocs (tensions related to nationalism and sudden stop of global cooperation in spite of the multiple global challenges, such as climate change and pandemics). These three trends are interconnected, and cannot be understood separately. Globalization and economic integration at a time of financial crisis have triggered economic and political populism reactions (see e.g. Rodrik, 2018, and Guiso et al, 2019, 2022). This implies that deglobalization trends go hand in hand with the democracy crises and nationalism traps (see Morelli, 2020). What is less

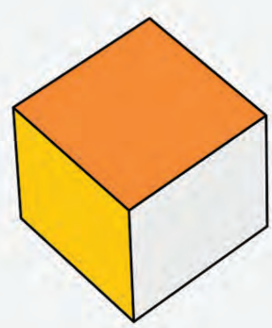
MASSIMO MORELLI
Full Professor of International Relations, Bocconi University

understood is the connection between these three trends and war.
I claim that the return of the threat of interstate wars and the consequent changes in international relations are not only a consequence of the three trends, but also a cause of further deterioration of them, thereby creating a dangerous vicious spiral. First, as argued theoretically in Mattozzi et al (2020), an expected wave of protectionism and trade wars can lead to more inequality across countries, and to greater frequency of conflict involving mainly exporting countries. However, the Russia-Ukraine conflict and the consequent geopolitical changes are going to further increase deglobalization. Second, while the anti-democratic objectives of strengthened rulers in the Middle East and former Soviet Union may be part of the causes of a more conflictual environment, conflict has



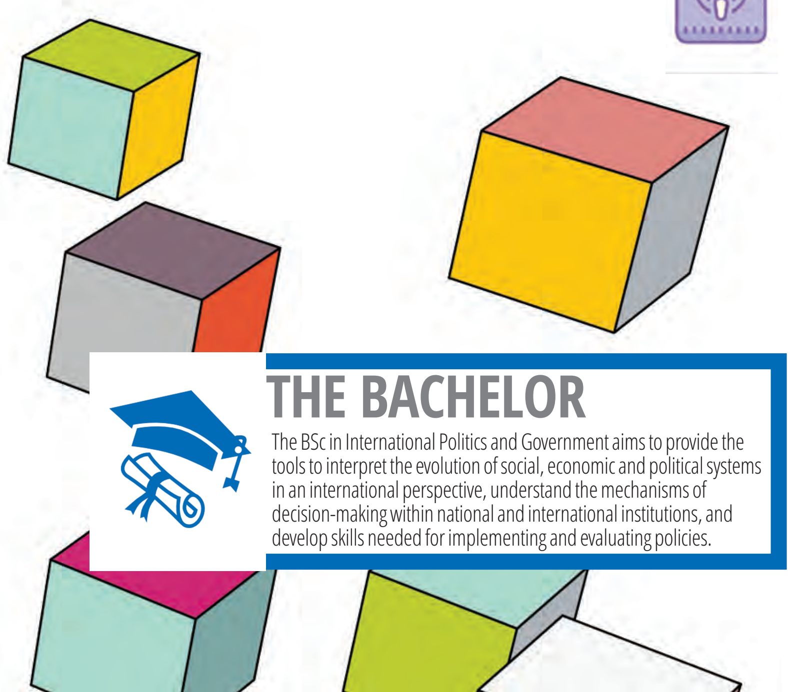
per se a rally around the flag effect, and a further depression of democratic movements. Third, populist quests of the protection of national identities weaken the credibility of international organizations and the EU, leading to lower restraint from war for powers like Russia, which cannot be deterred by individual European countries. But the war itself may cause further divisions within the EU and to further divisions between the west and the east of the world. One might say that on this third dimension the vicious circle can stop, because facing a war can actually strengthen cooperation within Europe. However, in a context of a geopolitical Russian goal of shifting back the boundaries of western influence, even the reluctance of Orban to endorse EU sanctions is a movement in their desired direction.

In a recent publication, Herrera et al (2022) show that



wars are mostly due to a mismatch between military and economic-political power. Russia at the beginning of 2022 was clearly the country with the largest mismatch, being on the one hand one of the two super-powers in terms of nuclear weapons and, on the other hand, being in a situation of economic decline. Moreover, as shown in Gallea et al (2022), centrality in the gas trade network entails typically durability of power and economic advantages, hence the motivation for the Russian invasion of Ukraine cannot be economic nor one of domestic politics: with a functioning Nordstream2 direct line with Germany, the data support unambiguously the hypothesis that domestic power stability and economic outcomes would have improved for Russia. Hence the motivation for the war must be of geo-political nature. The "line in the sand" placed by Putin in 2008 against consideration of Ukraine and Georgia to join NATO, the agreement with China on the undesirability of further enlargements of NATO, the interest in keeping the EU weak in terms of political actions, the interest in showing to people interested in democratic competition the weakness of western models, all played a motivating role. Moreover, in line with my vicious circle theme, the war has now consolidated the formation of an eastern bloc, advertised voluntarily with the Iran meeting with the presence of Putin and Erdogan.
In conclusion, the three trends and the multiplier effect of the Russian war are leading us to a new geopolitical order, where there will be two blocks. The cold war was an order with two super powers, and balance of power kept peace through deterrence. But a system of two blocks with unstable boundaries offers much lower deterrence, especially against wars like the one in Ukraine and the potential one in Taiwan. A divided system with unstable boundaries and low deterrence. Not an optimistic scenario. ■

PODCAST
The world order is in deep transformation and is moving to a world divided in two blocs, under leadership of the US and China. All this profoundly impacts the EU's role. In this StoryScanner podcast, Carlo Altomonte, professor of Politics & Economics of the EU at Bocconi, discusses Europe's response to the war in Ukraine, if Europe can forge a true common foreign and security policy, and other crucial issues it faces worldwide.



THE BACHELOR

The BSc in International Politics and Government aims to provide the tools to interpret the evolution of social, economic and political systems in an international perspective, understand the mechanisms of decision-making within national and international institutions, and develop skills needed for implementing and evaluating policies.

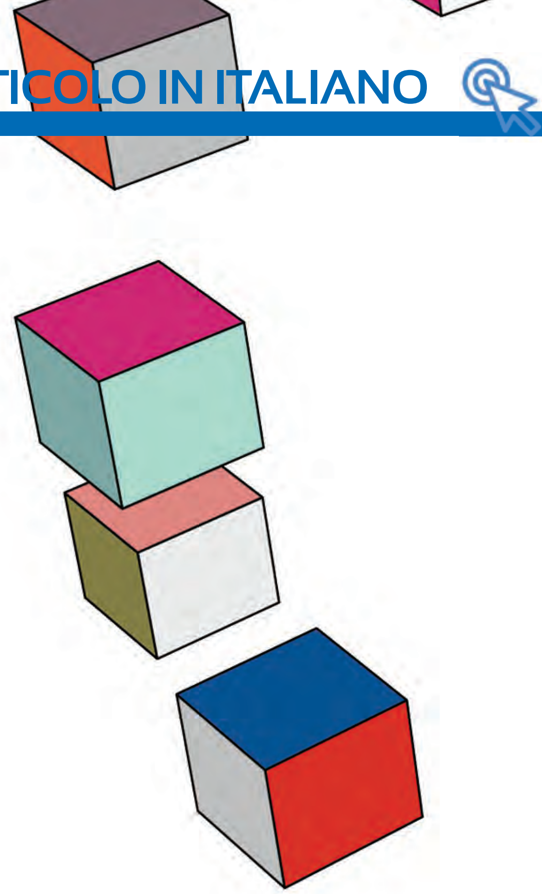
According to political scientist Ian Bremmer, author of The Power of Crisis, *international relations will be redesigned by what he calls the Goldilocks crisis: health pandemics, climate change, and the impact of new technologies. Increased collaboration between states, but also between companies and citizens, is the way to address this colossal challenge*

by Camillo Papini @

People have been through a lot of global crises in recent times and now the general perception of experiencing a new Cold War. In addition, we seem condemned to live now in a multipolar world with many superpowers, a higher risk of wars and different other countries in a variable geometry system. But, despite all this, what we need to build new opportunities for peace and overall wealth is another crisis: the Goldilocks one, according to the argument of **Ian Bremmer**, geopolitical analyst, founder and president of geopolitical risk firm Eurasia Group, columnist for many international magazines and newspapers (from Time to Corriere della Sera) and author of *The Power of Crisis*, which is in bookstores now. Goldilocks crisis is not a specific crisis, linked to a specific subject (the geopolitical downfall or the climate change), but it could be every next crisis. What is important is how intense it is: strong but always open to a solution, because the Goldilocks crisis is «frightening and dangerous enough to force governments to work together on the most important challenges they face but that is not so destructive that governments are paralyzed, and cooperation becomes impossible», explains to *viaSarfatti25* Bremmer. Didn't the last crises teach us well enough? «Not all crises are potentially useful. The global financial crisis did inspire immediate cooperation but it didn't inflict enough lasting damage to force governments to solve the problems», Bremmer says. «Then, the pandemic has inspired cooperation among some governments and among non-governmental organizations that can work together across borders on research and vaccine distribution issues. But the continued finger-pointing between Washington and Beijing demonstrates that cooperation remains limited».

➜ You see three more important crises now: next viruses, climate change and new technologies. Do you think climate change is the Goldilocks crisis, able to promote more cooperation and lead us to a better political and economic situation?

Public health crises are hard to manage because so many governments and people believe we can live with this threat without the major investments needed to improve the sharing of information and the burdens of



The geopolitics of crisis

IAN BREMMER
President and founder of Eurasia Group

emergency response for countries that lack the resources to protect their people. Climate change is the challenge that is most obviously global and universally shared. That's definitely positive. The tech part of the story is the most frightening because the threat isn't widely enough recognized.

➜ *What do you mean?*

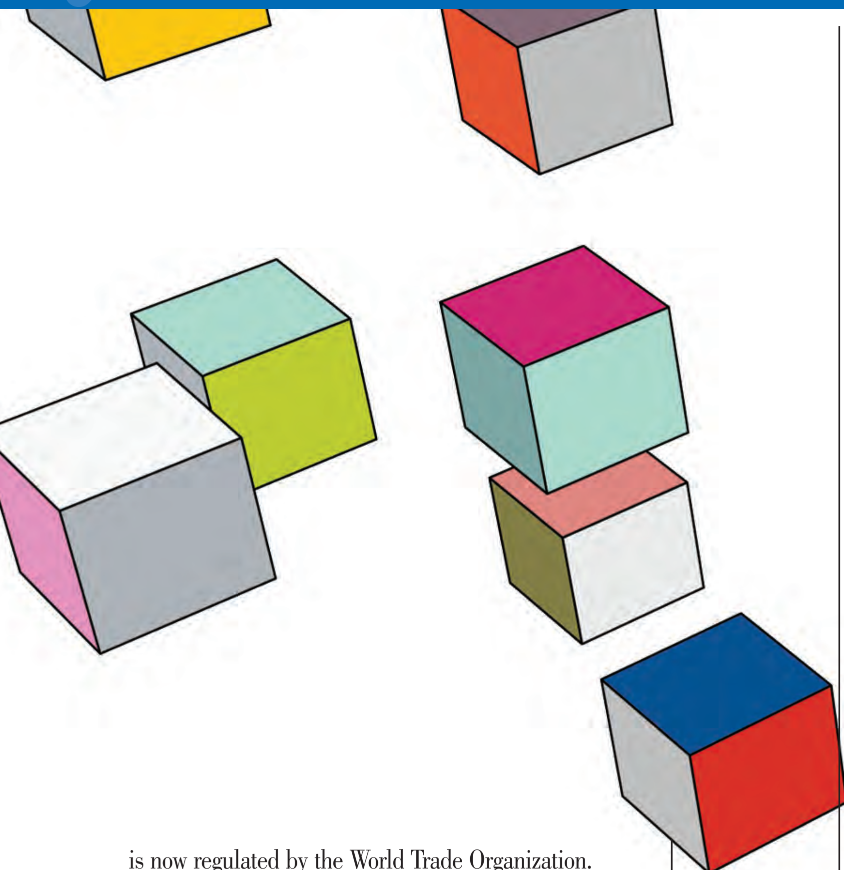
I'm not arguing that technological developments like Artificial Intelligence (AI) are bad for the world. But before we inject large numbers of people with a new vaccine, we rigorously test that vaccine is safe. AI, social media, digital weapons and advances in quantum computing are being injected into our societies without the testing we need to understand their effects. We need to understand each of them better and that requires agreements among nations on a few basic but important issues. Technological developments can transform our lives in barely visible ways and because there is no consensus, as exists now with climate change, that there's a problem that must be solved.

➜ *Even if we cope with the three crises at a time, a world with four superpowers (US, EU, China, Russia) seems to be less predictable than in the past…*

One point of clarification: Russia is not a superpower. In the coming years, the invasion of Ukraine will cut Russia off near completely from the world's developed economies. Export controls on critical technologies will have harsh effects over the next few years. And the further the global economy moves toward a green future, the higher the price Russia will pay for its failure to diversify its economy from deep dependence on oil and gas exports. Its military power will be depleted for a generation. With that caveat, America, China and Europe will dominate the coming decade. The US role will remain primarily on security. It will continue as the only country that can project military power into every region of the world. Europe will be primarily a market and regulatory power because it will remain the world's largest free market and a precedent-setter in creating rules that help move the world toward a greener future and to consider seriously the rights of the individual with regard to new technologies. China, together with the US, will remain the lead tech innovator.

➜ *You suggest the solution is promoting a pragmatic alliance among states. Where would you start to build this alliance?*

Cooperation always begins among like-minded allies. Russia's invasion of Ukraine provides an example of a crisis that has for now brought Europe and the United States closer together than they've been in decades. Think of the changes that have occurred in Europe this year that would have been impossible before February, on energy policy, Nato expansion… I think these changes have been on the whole strongly positive and the speed of these changes could only be achieved by able and like-minded allies. The hope is that successful cooperation on a few especially important issues by allies can persuade non-allies to offer limited cooperation. Governments don't have to agree on political or economic values to work together to reduce carbon emissions and ensure that an arms race in cyberspace doesn't endanger the entire global economy. In The Power of Crisis, I call for the creation of a World Data Organization that can set basic rules about the government and private-sector use of personal data that is similar to the ways in which trade



is now regulated by the World Trade Organization.

➜ What role can companies, especially big tech groups, have in promoting international stability and cooperation?

Big tech companies will have to redefine their interests. If they begin to see themselves as "national champions", they will have clear incentives not to promote cross-border cooperation. If they continue to assert their rule-making dominance in the digital world and create new products without regard to their impact on global society, their influence may become catastrophically destructive. But if they use their economic power to maintain a global marketplace and invest in products that sustain global commerce, they can play a vital role in helping people. ■

THE BOOK

The world will face three more notable crises: unpredictable health emergencies, devastating climate change and effects of new technologies on people's lives. To complicate matters there are disunity of American politics, tense relationships between the US and China and the absence of important leaders. But some policy-makers, companies and citizens are starting to cooperate. Ian Bremmer in *Il Potere della crisi* (Egea, 2022, 216 pages, €22,5, in Italian) tries to understand how they can work together and well enough to solve crises in time.

Selective re-g be the new fa

The effect of the new world order that is emerging will probably not be deglobalization, but economic agreements based on political affinity. Rather than off-shoring, friend-shoring. But it could still divide the world into two blocs as during the Cold War

di Gianmarco Ottaviano @

A new world order is on the horizon. And it looks like globalization will never be the same again. In recent years, the efforts of many countries have been directed towards creating alternatives to the integrated global economy that has progressively consolidated after the Second World War. A process that experienced a further acceleration following the war in Ukraine and the consequent economic sanctions inflicted on Russia by the international community. However, the most likely outcome of the ongoing transformation will not be the deglobalization as feared (or hoped for) by many commentators, but a "selective reglobalization" which by altering the traditional multilateral logic of trade agreements could have important consequences for global security and the new world order that is taking shape.

Since the start of the millennium, the global economy has entered very troubled waters: the attack on the Twin Towers, the wars in Afghanistan and Iraq, the crisis of American finance and European public debt, the Arab Spring and war in Syria, the trade war between China and United States, growing inequalities and migratory pressures, food emergencies and increasingly evident climate change, up to the Covid-19 pandemic and the military conflict between Russia and Ukraine, with the consequent return of the nuclear threat.

These events and the reactions they have triggered highlight the diversity of national points of view and the difficulty of converging on common initiatives. While on the one hand globalization has created a large integrated

globalization will ace of the world

market in which to make the most of the comparative advantages of various countries and economies of scale in production, on the other hand it has united the destinies of nations that have their own histories, cultures, institutions, traditions, and often very different sensitivities from each other. And the differences are now coming to a head.

The invasion of Ukraine by Russia has raised, once and for all, a fundamental and uncomfortable question for supporters of pure and hard globalization: is it prudent for democratic societies, whose economies are founded on market capitalism, to keep normal economic relations with autocratic societies, whose economies are instead founded on state capitalism, when these autocratic systems become more aggressive as they become richer thanks to the very same economic relations?

Countries have responded to the tensions of recent years by moving mostly in two directions. The first is returning to nationalism. An approach that, however, is incapable of managing the surfeit of global emergencies that we are facing. Hence the second direction of release of existing political tensions, the one we are witnessing at the moment: countries that, having understood that they cannot go it alone, try to select their alliances on the basis of elective affinities of an economic and political nature. In short, faced with the limits of nationalism, they are seeking "selective reglobalization": globalization yes, therefore, but only between trusted friends. In short, "friend-shoring", rather than simply off-shoring.

The underlying idea is that a country can provide a bright future for itself only if it is in full control of its national security also from an economic point of view. Let us assume for the sake of hypothesis that the selective reglobalization in progress can be sustainable from the point of view of elective affinities and that current trends are confirmed, leading to a world divided into two main spheres of influence, American and Chinese, competing with each other for the planetary hegemony, between which countries have to choose from. Would they find themselves in a safer world than the one they currently live in? That is doubtful. From a geopolitical point of view, it would be a rehashing of the "mad" doctrine of Mutually Assured Destruction, in an era when the devastating power of weapons of mass destruction and the number of countries that have them at their disposal has grown strongly compared to Cold War times. You also have to consider that, from an economic point of view, natural resources would still be divided among countries in an unequal way and the temptation to steal them by force from others would remain a constant threat to everyone's security.

In short, despite the ongoing transformation process, only the multilateral approach born from the ashes of the Second World War can cement the security of all countries in an environment of mutual trust and respect, reflecting their needs in an inclusive way. There are no local solutions to global problems. There is no national security without international security. ■

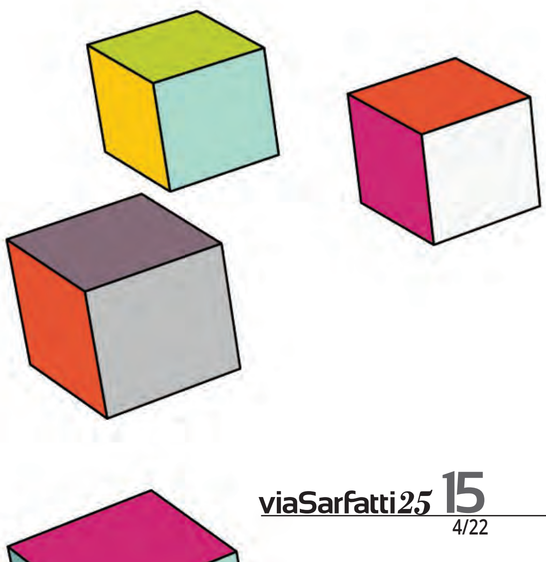
GIANMARCO OTTAVIANO
Full Professor of Economics and holds the Achille and Giulia Boroli Chair in European Studies, Bocconi University

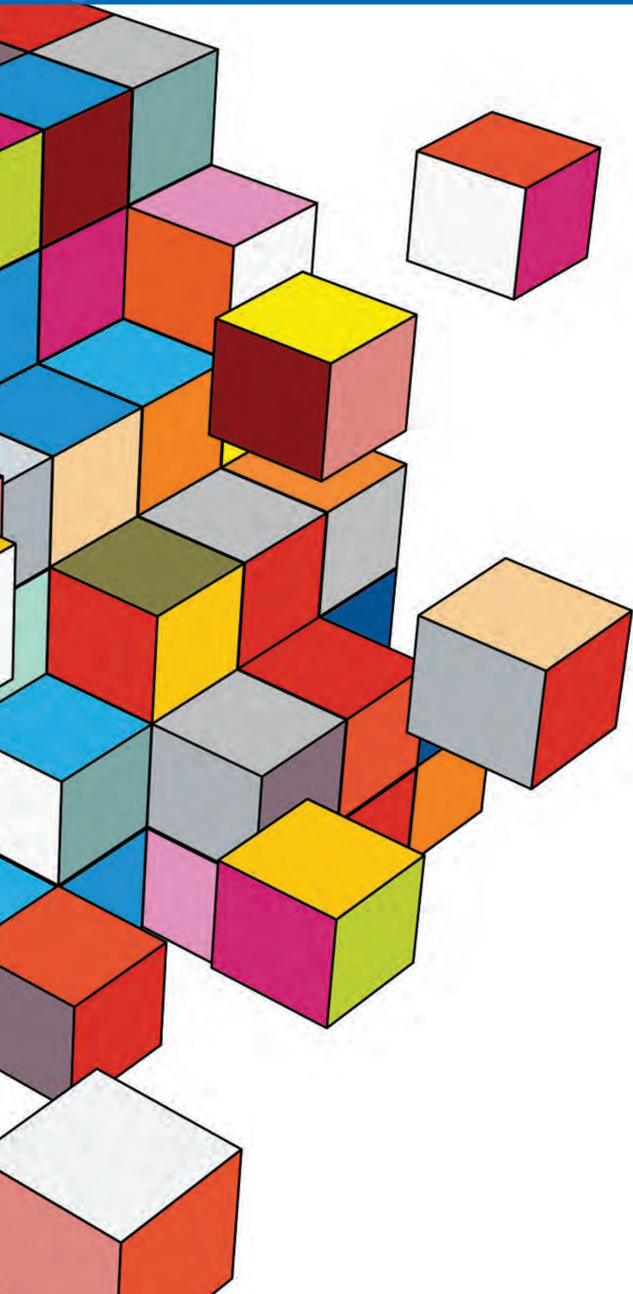
THE MASTER OF SCIENCE

The MSc in Politics and Policy Analysis aims to provide an advanced education in Political Science and the topics of public policy analysis. Students will understand the complex political, economic and social dynamics of the modern world, how national and international institutions deal with them and how to act in such contexts.

THE BOOK

Riglobalizzazione. Dall'interdipendenza tra paesi a nuove coalizioni economiche (Egea, 2022, 144 pp., €16, in Italian), Gianmarco Ottaviano offers much food for thought on the near future of the global economy, the consequences of the new multilateral logics of planetary security and the new world order that is taking shape. He explains that selective globalisation will be more likely than a wave of deglobalisation.





"EU, the greatest

To promote the universal values of which Europe is guardian: democracy, tolerance, respect for human rights, liberalism and repudiation of war. This is how Giorgio Starace, the Bocconi alumnus who today is ambassador to Russia, interprets the mission of diplomacy. All the more so in a shifting geopolitical world

GIORGIO STARACE
An Economics graduate from Bocconi in 1982, Starace left for his first mission abroad at the Italian Embassy in Guatemala in 1989. He subsequently served the country in China, at the Directorate General for Economic Affairs of the Farnesina, then at the Ministry of Agricultural Resources and later at the Permanent Representation of Italy to the United Nations, before moving to the Embassy of Italy in India. In 2010, he was appointed ambassador and dispatched to the United Arab Emirates. In 2015, he became Special Envoy for Libya, before heading the diplomatic mission to Japan in 2017. Since October 2021, he has been the Ambassador of Italy to Moscow. Of his period of studies at Bocconi, he recalls: "I lived in the Milan of the early 1980s. The city was recovering its great entrepreneurial spirit after the turbulent 70s. Bocconi was at the center of this great drive towards the future. Those were highly formative years: I am very grateful to Milan and this prestigious university!".

by Camillo Papini @

Forget the idea that ambassadors and other member of the diplomatic corps correspond to characters in a John le Carré novel. There is not enough time on the watch to embrace that stereotype. In fact, public communication has become increasingly important and frequent, and thus also diplomacy has changed by opening up to social networks and looking at new areas of expertise such as the green economy, robotics and Artificial Intelligence. "To reflect the ambassador's spy story image, I would need a second life. Because diplomats need now to be present and proactive characters on the public scene", says **Giorgio Starace**, Italian ambassador to Moscow since October 2021, and Class of '82 Bocconi Alumnus, to Via Sarfatti 25.
An ambassador and his team must be good communicators with antennas always attuned to current events, especially considering the new multipolar geopolitical world, from China to India, from the US to Brazil, from Russia to Indonesia, and other countries that are emerging as protagonists on the international arena. Our commitment is promoting a European pole that is guardian of universal values such as democratic freedoms, tolerance, respect for human rights, liberalism and the repudiation of war". And it is precisely from the valorization of these that are cultural pillars for Italy, as well as the European Union that dialogue between peoples will be able to restart in the future, even with Russia, according to Starace (who has been in the diplomatic corps since 1985).

➜ Diplomacy remains the only alternative to war in solving international conflicts. But how can you spread the values you cite more effectively?

Both the channels with which we communicate and the formats of what we communicate must be constantly updated. It is necessary to devote a lot of time to social media platforms and all the mobile platforms frequented by young people, who are the citizens and consumers of tomorrow. As for the format, Italy in particular has a lot of

LEGGI L’ARTICOLO IN ITALIANO

revolution in modern history”

soft power, which is translated into popular kinds of content that portray the Italian way of life and generate cross-border interest. In this case too, they are universal values, because you can live them anywhere in the world according to tricolor principles, although these need to be conveyed with strong and penetrating messages through institutional profiles. It is no coincidence that the Ministry of Foreign Affairs has recently created a general directorate for public and cultural diplomacy, something which confirms this orientation.

➜ However, many Italian characteristics that have appeal in the world also mean different areas in which to intervene and always be competent…

This is the reason why the training course of the diplomatic corps is fundamental. In addition to communication, the diplomat’s syllabus is being enriched on the economic side, following among other things the progressive growth of a green and circular economy. But sciences and new technologies must also be studied, including for example robotics and AI, without neglecting other areas such as medicine at the service of older generations or the development of space infrastructure. The subjects are many and the important thing is to give a vision of the future that Italy and Europe want to achieve, especially when it comes to mature economies that must find new production cycles for their own country systems. In this sense, Italy is doing a lot and diplomacy must be able to support this endeavor.

➜ Italian and European values coincide and are universal, but still the EU does not have yet a sole voice in foreign affairs. Moreover, direct contacts between governments often seem to reduce the scope and role of EU diplomacy. How come?

Expanding the role of the High Representative of the Union for Foreign Affairs and Security Policy is certainly a decision to be taken as soon as possible. That said, periodic consultation and coordination are maintained among the 27 member countries and, at least in Italy, it does not happen that a member of the executive calls his foreign counterpart without the diplomatic corps having provided the supporting information material. The relationship with the Farnesina (Italian Foreign Ministry HQ) is constant.

➜ How do you see the future of Italy-Russia relations? Will the Atlantic orientation of the Peninsula make the presence of Italian companies in Russia more difficult?

As an ambassador of Italy, I am an ambassador who believes more than ever in the Western Alliance and, likewise, I believe in the European challenge. I maintain contact with the Russian government, despite the current difficulties; Italy clearly states its opinion and the Russian counterpart responds with its own narrative. We continue undeterred to push for negotiations and an end to hostilities. But, recalling the importance of having a vision of the future, I think that it will be cultural relations that will restart the dialogue between the two countries, when this is possible. The economic repercussions of the conflict, especially in sectors such as energy, will depend on the evolution of the war but it remains true that the Italian people and the Russian people have known each other for centuries and have had diplomatic relationships accordingly.

➜ What experience from your diplomatic past do you think will help you the most?

I got great satisfaction from the diplomatic advances that Italy made when I was Special Envoy to Libya. Even though the North African country is now facing new difficulties, we have worked firmly in favor of the country’s democratic experiment and we have pursued its consolidation, once again in tandem with our European and Atlantic partners. After all, I believe that the EU is the greatest revolution in modern history. The reason? It almost made member countries forget the concepts of war and nationality. ■

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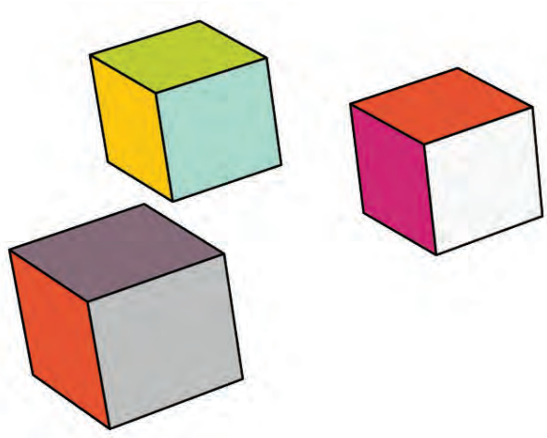

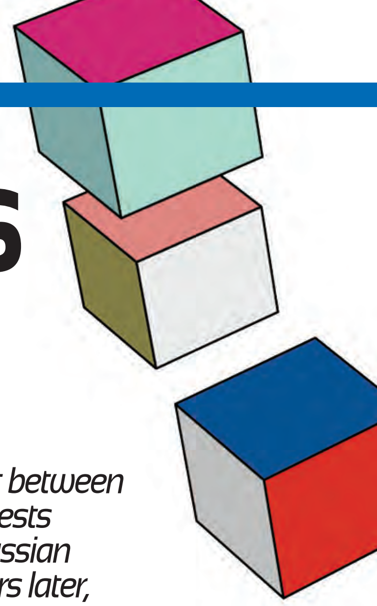

When history does not repeat itself

On several occasions over the past century, there has been a disconnect between the international legal framework and the real world order, with the interests of the great powers prevailing over the aspirations of smaller nations. Russian President Putin, who reaffirmed this in 2007, perhaps hoped that 15 years later, the international community would also yield. But this has not been the case

by Tamas Vonyo @

World order is a relatively new concept in history. It has been the product of globalization and geopolitical thinking. The need for an orderly relation between the great powers codified in international law and the establishment of an international legal framework for the non-violent settlement of conflict first arouse at the end of the Napoleonic Wars, the culmination of more than a century of mercantilist warfare among European powers. Between 1689 and 1815, in what historians termed the 'second hundred years' war, Great Britain, France and their allies spent 64 years on the battlefield in their quest for hegemony. The Congress of Vienna, chaired by Austrian statesman Klemens von Metternich, aimed at reconstituting a peaceful order with a careful balance of power and the commitment by the great monarchies of Europe to stand up to any threat to the new order. The final settlement of the congress remained the framework for European diplomacy until the outbreak of World War I.

The international order of the nineteenth century, known as the Concert of Europe or Congress System, was an evolving consensus between the great powers to maintain political borders and spheres of influence both in Europe and overseas. It faced serious challenges from the revolutions of 1848, the Crimean War of 1853-56, and the unification of Germany and Italy. From 1870 to 1914, it supported one of the most enduring periods of peace on the continent and the expansions of European colonial empires in Asia and Africa. Imperialism transformed the Congress System from a continental to a world order. The Congress of Berlin hosted by the German chancellor Otto von Bismarck recognized the new nation states of the Balkans following the Russo-Turkish War of 1877-78, but also the spheres of influence of Russia and Austria-Hungary. The General Act of the Berlin Conference in 1884-85 regulated the partition of Africa between colonial powers. Even though World War I brought an end to the Concert of Europe, 'world order thinking' returned to international relations with a vengeance from 1918, supported most vigorously by U.S. President Woodrow Wilson. Even though the League of Nations created a more permanent and more inclusive framework for a world order, in practice, the concert of great powers maintained its dominance. This was demonstrated most unequivocally in the Munich Agreement between Great Britain, France, Italy and Germany in 1938 to cede the German Sudetenland to the Third Reich. It was recognized by all European nations even though it violated the Covenant of the League of Nations, which obliged member states 'to respect and preserve as against external aggression the territorial integrity and existing political independence of all Members of the League' (Article X). The Covenant itself recognized the spheres of influence of great powers, a keystone of the old Congress system. It ceded the former German colonies in Africa and the South Pacific as well as Ottoman domains in the Middle East to Britain and France as 'Mandate' territories (Article XXII). This discrepancy between legal framework and the 'real' world order became even starker at the end of the World War II. The Preamble of the United Nations Charter 'determined to save succeeding generations from the scourge of war … and to reaffirm faith in … the equal rights of nations large and small'. Yet, the contours of the postwar world order and the new borders of Europe were carved in Yalta and Potsdam between the main Allied Powers of Great Britain, the Soviet Union, and the United States, once again recognizing the principle of spheres of influence. The same principle was invoked by Russian President Vladimir Putin in the Bayerischer Hof at the Munich Security Conference in 2007, when he reasserted that the geopolitical interests of a great power should have primacy over the right of individual nations (countries of Central Europe having by then joined NATO) to shape their own place in the world order. Fifteen years later, he may have hoped for 'another Munich' when the concert of great powers would once again ignore the rule-based order of international relations. This time – thankfully – history did not repeat itself. ■

TAMAS VONYO
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The era of renew

The road to the development of renewables is sown with economic, technical, environmental and social hurdles that need to be overcome through steady commitment rather than bold proclamations

by Luigi De Paoli @

able sources

Promoting sustainable development has a much broader meaning than satisfying energy demand via renewable sources. However, there is no doubt that the nexus between sustainability, the fight against climate change and the replacement of fossil fuels to reduce greenhouse gas emissions has projected renewable sources to the top of the agenda of global energy policy. However, we must not forget that 2021 the weight of modern renewables in meeting world energy demand was still only 13.5% (BP data), while the fossil-fuel triad (oil, coal and gas) contributed for 82.3%. We are therefore still fully living in the era of fossil fuels. How long will it take to fully enter the new era?
In fact, the first thing to bear in mind is that transition times are very long because the energy system has a strong inertia. For example, over the last ten years (2011-2021), the share of renewables in world energy consumption has grown by only 6% (from 7.2 to 13.5%) despite strong public incentives. If renewables worldwide still have a relatively modest weight, it is because there are sectors where their use is difficult or not very economical: they are the hard-to-abate industries, like aviation and shipping, industrial or civilian thermal uses, where replacing fossil fuels is more difficult.
The case of electricity is different. In 2011, the weight of renewables in electricity production was 20%, but 16% of this was due to hydroelectric energy which for more than a century has played an important role in electrification. But in these ten years the world of renewables has changed significantly: wind and solar production has grown enormously, so that green energy now accounts for 28% of world electricity production in 2021.
For the future, wind energy and solar energy are called to play a fundamental role in achieving the goal of "zero emissions" of carbon dioxide. All scenarios indicate that solar and wind power will be decisive in the coming decades, even if the actual development may turn out very different from predictions. The International Energy Agency (IEA) in its World Energy Outlook of 2021 has considered four scenarios ranging from the mere continuation of the policies in place (scenario called STEPS) to the more proactive scenario that aims to achieve Net-Zero Emissions (NZE) by 2050.
In the middle there are two scenarios with an intermediate development of renewables, if the policies already announced (APS) will be implemented or if more ambitious ones (SDS scenario) will be launched to move more decisively towards sustainable development. To understand the effort under way, but also the diversity of possible outcomes, it is sufficient to consider that, starting from 1500 GW of installed power in 2020, in the current decade new photovoltaic arrays and wind turbines would be put into service reaching the scale of 2700 GW

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(million kW) for the STEPS scenario and a staggering 6600 GW in the NZE scenario. By 2050, the difference in prospective outcomes will be even more gaping because it would involve building solar and wind power plants for a total of almost 7700 GW in thirty years in the STEPS scenario, rising to 21000 GW in the NZE scenario.
Unfortunately, these figures do not mean much to the average person who thus fails to appreciate the extent of the gargantuan effort required. To get an idea, assuming that half of solar power is placed on the roofs of buildings (according to EU target recently announced by the European Commission for the EU), in the case of the sustainable development scenario (SDS), about 75 million homes need to install PV panels on theirs roofs by 2030, and nearly 300 million homes by 2050 (each with an 18 kW system).
The effort to decarbonize the energy system is therefore daunting and does not only concern solar and wind power, but also other renewable sources, as well as hydrogen, the development of smart grids, batteries (given that energy must be stored since sun and wind are intermittent) and the diffusion of all technologies that improve energy efficiency and, where possible, the electrification of processes. The ongoing and prospective transformation of the energy system therefore requires massive investments, and the will is there from the point of view of energy operators, as well as financial actors increasingly oriented towards sustainable investments, provided there is a way to recoup the investment in reasonable times and under conditions of regulatory certainty.
However, imagining that we can leapfrog in a short time towards a world made entirely made of renewable sources, and that everything depends on "political will", is an error that risks deceiving public opinion. The road to the development of renewables is sown with economic, technical, environmental and social hurdles and the best way to overcome them lies not in lofty proclamations, but in keeping all the relevant players committed to the target of decarbonization. ■

The next big thi

Technologies for the energy transition exist but, says Marco Patuano, Bocconi Alumnus and president of the A2A energy company, "there is still something missing to make it all happen".

by Emanuele Elli @

"We need to extend the planning horizon, also using the imagination if necessary, to put ourselves in a position to reap the benefits that will certainly be there, even if today we can only intuit them," says **Marco Patuano**, president of the A2A Group and Bocconi Alumnus, of the energy transition. He's going through the difficult exercise of drawing up today a ten-year strategic plan for a company operating in a turbulent sector such as energy today. In the document, presented at the beginning of the year, the largest Italian multi-utility (which prefers the definition of "Life Company" for itself) allocated €18 billion in investments, most of which destined to the development of electricity production from renewable sources, a further sign that green energy is the direction of development for all firms.

➜ You have worked for a long time in telecommunications; you must be used to take the long perspective and confide in technological progress...

Yes, in fact, when today I hear about some technologies in the sectors where A2A operates, such as hydrogen or biomethane, the dawn of the Internet comes to mind: these are technologies that have existed for years, and we are all convinced they are going to be the "Next Big Thing", but at the same time there is a sense that something is still missing to make it all happen. At this moment there is an ever greater dyscrasia between the current state of the art and the scenarios towards which macro trends are inevitably leading under the push of social phenomena, geopolitical events, technological developments.

➜ As A2A group you have recently acquired a

LEGGI L'ARTICOLO IN ITALIANO

ng has already been invented

sizable wind farm: is this the renewable source on which to invest at the moment? What other technologies do you think are the most promising?

Photovoltaics and wind are more than promising technologies, they are a tangible reality. If we talk about promising technologies, looking much further, say beyond 2050, I think that the greatest hope comes from the fusion of the atom. If, on the other hand, we broaden the discussion from renewable energies only to the world of Net Neutral, then I would say that technologies of absolute interest are found in the world of Carbon Capture, understood not so much as the storage of CO2 in the subsoil but the treatment and exploitation of carbon dioxide.

➜ In Italy, the construction of new power plants is still an almost impossible mission. Will the increasingly evident climate emergency change things in your opinion?

The energy transition is necessarily a process of "learning the hard way": you learn from everyday emergencies, even if for many people these are never evident enough. The point is that acting under the tyranny of emergency means that we tend to favor effectiveness to "solve problems", and thus we tend to centralize decisions. Plants such as those mentioned, however, have very visible impacts on the localities that host them and cannot be achieved without dialogue with local stakeholders. It is no coincidence that a NIMBY attitude is growing around almost all the initiatives, that is, "not in my territory". I am from Piedmont and love to contemplate the rows of vines in my countryside, so it is not obvious that I would be happy if they built wind turbines in front of my house. When it comes to these technologies, people have many questions, they are often frightened because they do not fully understand the implications. But if we put ourselves in the shoes of those who have to allocate capital for investment, no company can accept lengthy times to build an infrastructure. We must therefore strike a balance and find new forms of exchange between companies and the local territory that stave off the mentality of always looking at what is lost without first comparing it to what can be obtained.

MARCO PATUANO
Born in Alessandria, 58 years old, Marco Patuano graduated in Business Administration from Bocconi before completing his studies in the US. He made his professional debut in telecommunications in 1995, following the birth and growth of TIM until becoming, in 2011, CEO of Telecom. "After that experience, I remembered that I had a specialization in finance so I started dealing with financial holding companies" jokes the president of the A2A Group, recalling his past as CEO of Edizione srl, his work at MP Invest foundation, or his role as senior advisor for Nomura. "The Bocconi that I knew was first and foremost a school of method and for this reason it gave a very valid teaching to succeed first in studies and then in profession of manager. I remember that, while most of the business schools were still focused on organizational issues, here they were already into strategic thinking, a nice advantage over the competition".

➜ The perplexities also arise from the fact that few have yet been able to touch the advantages of the transition to renewable energy, at least among private individuals.

That is not entirely true. If we all drive an electric car within 10 years, it will be because it is cheaper. I usually already use one for the city. Why? The math is simple: with a liter of fuel you can travel, in the best of cases, 15 km, while with its equivalent in electric power, 10 kWh, an electric car runs for 80, 100, maybe even 120 kilometers, because the electrical motor is much more efficient than the endothermic one, which disperses more energy by producing heat. It is a very tangible convenience that brings benefits not only to the environment but also to the user. This is a very relevant change because of the about to 1300 terawatt hours of primary energy that Italy uses (I am referring to the sum of electricity, gas and petroleum derivatives), a major share is due to transportation.

➜ In what way will the growth of renewables change geopolitics and what will be the role of Europe?

If we divide the planet into macro blocks, we notice that there is just one area where energy offer and consumption is in balance, and that is North America. They have an energy-intensive market but also uranium, gas, oil, sun and wind. In short, they can go it alone. Russia and the Middle East are net exporters, China and Southeast Asia are net importers. Europe is in structural deficit because it has no indigenous sources of energy. As Europeans we must ask ourselves how we can remain match demand and offer in the time that separates us from the diffusion of atom fusion that will finally free us from the importation of energy. If, as we have said, this will happen beyond 2050, all that remains is to find a way to harm ourselves as little as possible for the next 30-50 years. The issue is largely political, as much of the necessary technology already exists. A school case says that if we equipped a square of about 100 square kilometers with solar mirrors in the Sahara desert, this would guarantee all the energy that Europe needs. It does not mean that it can really be done, but it does mean that we have the technology and that in order to find common solutions we must truly become a European Union. ■

The rules of the hydrogen game

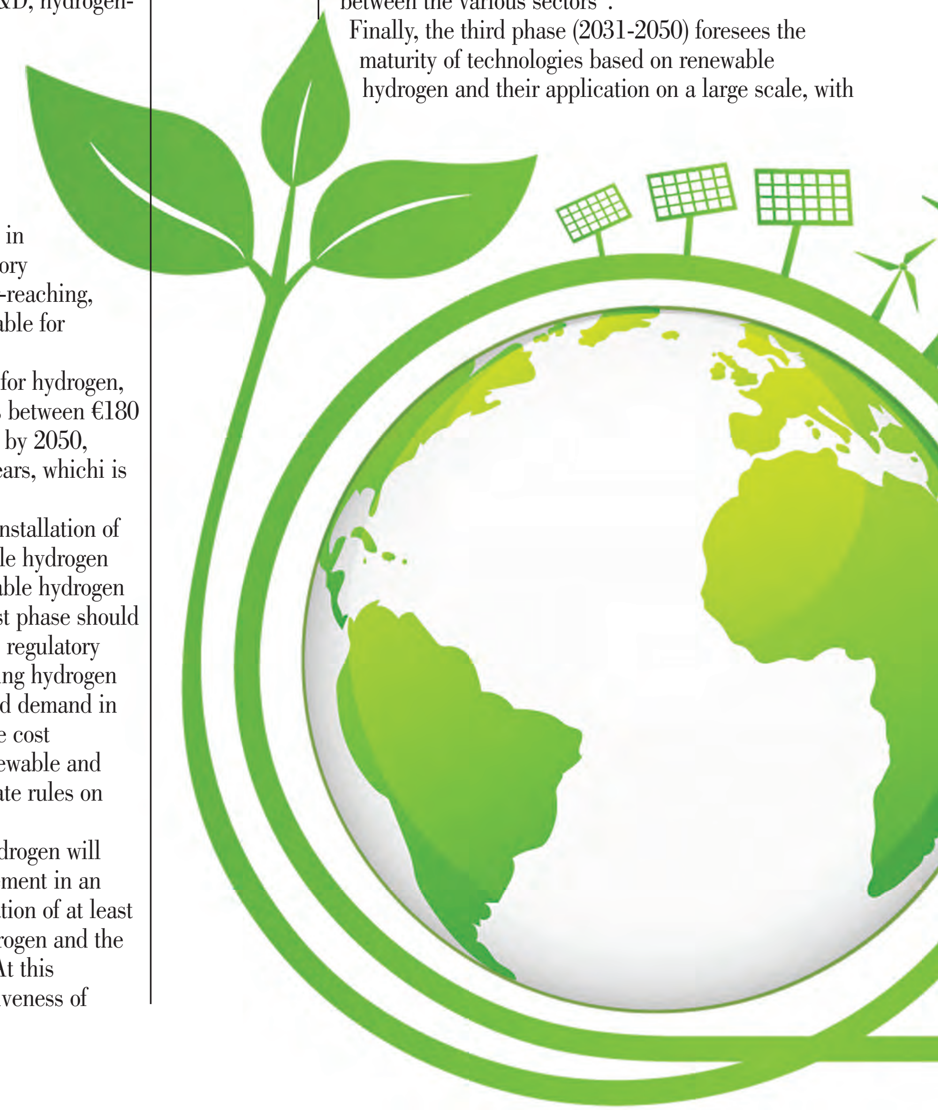
The European strategy is there but the regulatory framework must be adapted to the new priorities. In Italy, the key factor enabling an energy system integrated with the hydrogen resource is represented by the National Plan for Recovery and Resilience.

by Franco Ferrari @

In the last twenty years, issues related to hydrogen have acquired centrality in the context of EU policy on energy and climate, culminating in the adoption of the Commission communication "A hydrogen strategy for a climate-neutral Europe" of 8 July 2020.
European policies have not yet produced a complete regulatory outcome: at present, in fact, the production, circulation and use of hydrogen does not have an organic discipline. Partial and fragmented regulatory discipline can be found in legislation of various kinds (mainly decisions and regulations) on hydrogen R&D, hydrogen-fueled vehicles and hydrogen distribution networks, as well as industrial activities and hydrogen from renewable sources.
Many point out the need to revise existing legislation in order to adapt the existing regulatory framework to the new demands determined by the European strategy for hydrogen. It is true, however, that, at least in relation to the transport sector, the regulatory interventions have been numerous and far-reaching, defining a significant corpus perhaps suitable for merging into an organic and single text.
Faced with this situation, the EU strategy for hydrogen, starting from quantification of investments between €180 and €470 billion into renewable hydrogen by 2050, provides a real roadmap for the next 30 years, whichi is divided into three phases.
The first phase (2020-2024) calls for the installation of at least 6 GW of electrolyzers for renewable hydrogen and production of 1 million tons of renewable hydrogen is expected. On a regulatory level, this first phase should be characterized by the need to define the regulatory framework "for a liquid and well-functioning hydrogen market and on the incentives to supply and demand in leading markets, also compensating for the cost differences between the solutions and renewable and low-carbon hydrogen and adopting adequate rules on state aid ".
During the second phase (2025-2030), hydrogen will have to take on the role of an essential element in an integrated energy system, with the installation of at least 40 GW of electrolyzers for renewable hydrogen and the production of 10 million tons of the fuel. At this juncture, an improvement in the competitiveness of

FRANCO FERRARI
Senior Professor, Department of Law, Bocconi University

renewable hydrogen is expected, the extension to various industrial applications (steel, trucks, rail transport) and the development of local hydrogen hubs. The infrastructure will also need to be adapted, with the planning of a pan-European hydrogen network and a network of refueling stations. At this stage, the legislation will have to provide for the "completion of an open and competitive EU hydrogen market, characterized by the absence of a barrier to cross-border trade and by an efficient distribution of hydrogen between the various sectors".
Finally, the third phase (2031-2050) foresees the maturity of technologies based on renewable hydrogen and their application on a large scale, with



the spread of synthetic fuels derived from hydrogen also to aviation and shipping and with the use of biogas to replace natural gas in the production of hydrogen with capture and storage of carbon dioxide.
To support such a far-reaching transformation, the Union foresees the need for substantial investments - between €24 and €42 billion by 2030 for electrolyzers, €220-340 billion for increasing energy production from renewable sources and an additional €11 billion for the rollout of carbon capture and storage technologies, in reference to which a specific "European Alliance for Clean Hydrogen" will be set up, bringing together companies, public administrations, research bodies in implementation of the hydrogen strategy by defining of investment projects.
Individual national experiences, more or less developed in their approaches, find space within the EU framework. Italy has attributed a particularly important role to hydrogen in order to achieve the so-called "ecological transition starting from the Integrated National Energy and Climate Plan (PNIEC), published in January 2020.
The key point towards an energy system that integrates hydrogen among its sources is, however, the Italian National Plan for Recovery and Resilience (PNRR) which enables the outlay of sizable sums for investment. As part of the legislation related to the PNRR, which within Mission 2 lists hydrogen as an investment item, and the PNIEC, the Legislative Decree May 31, 2021, no. 77, as converted into the Law of 21 July 2021, no. 108, has included among the works and infrastructures necessary to achieve the objectives set out by the PNIEC, the production, transport and storage of hydrogen, as well as those functional to the refueling of hydrogen vehicles.
With the Decree of 27 April 2022, the Italian Ministry for the Ecological Transition has, lastly, has approved the regulations for the implementation of the investments envisaged by the PNRR. In particular, €450 million have been allocated, so apportioned: €250 million for the construction of plants for the production of electrolyzers of European interest; €100 million for the construction of additional electrolysis capacity reaching 1 GW per year of electricity by 2026; €100 million for investment programs aimed at developing the production chain of hydrogen from electrolysis and/or related components, including projects for targeted R&D and training of specialized personnel. ■

The value of waste

Replacing the concept of waste to energy, today we talk about Waste to X, as explained by Giovanna Chiara, SDA Bocconi alumna and manager of Hitachi Zosen Inova, who also considers that no technology or source, including nuclear power, can solve the energy problem alone

by Emanuele Elli @

"I have always hoped to apply my chemical engineering degree to an industry that had a higher meaning and purpose than simply business. So I immediately tried to deal with renewable energy and sustainable technologies, because they represent the challenge par excellence for the future of the planet. Even if this has meant, so far, that I have always worked outside of Italy". No regrets, mind you, in the voice of **Giovanna Chiara**, Global Sales & Business Development Manager at Hitachi Zosen Inova and SDA Bocconi EMBA Alumna, but only remarking that corporate Italy has never entered her professional parable. And it is quite an emblematic case. Graduated in Turin, she headed for Spain in 2004, where government policies already favored the development of thermodynamic solar plants, a technology promoted by the Italian Nobel laureate Carlo Rubbia. "State incentives allowed the creation of 150-megawatt plants and the utilities were responding in unison," summarizes the manager. "From there I moved on to deal with offshore wind for General Electric and today in Zurich I work on waste-to-energy plants for Hitachi Zosen Inova, mainly developing the small collateral processes that are connected to the main plant and that favor the recycling of materials. Today, in fact, we no longer speak of Waste to Energy processes but of Waste to X because an array of metals, salts, new raw materials can be obtained from the processing of waste. These are very complex infrastructures which are increasingly inspired by the concept of the circular economy".

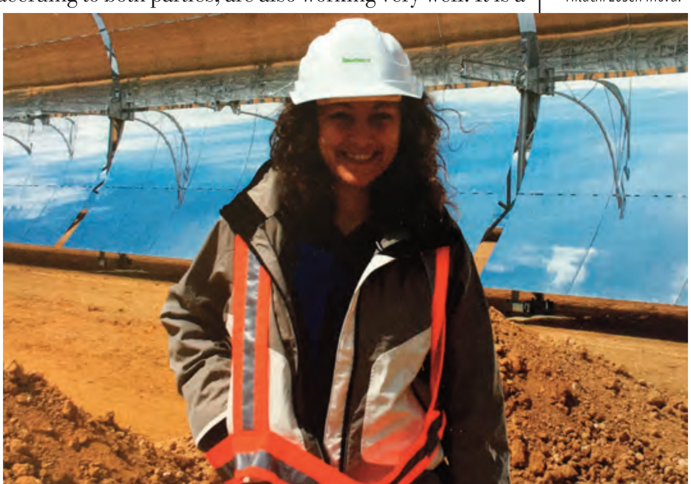
➜ How is the energy market changing with technological innovation applied to the exploitation of renewable sources?

It is changing a lot but not yet enough to alter the established equilibrium. In Europe there is already a good base for renewables but there is still a lot to do to decrease dependence on gas imports. On a global level, however, the most promising aspect is that developing countries are leapfrogging to new energy infrastructures based on renewables, skipping the intermediate fossil step. Some technologies are well established and the producers are the very same countries that need them most, such as China, which is already a leader in solar energy. Another fundamental chapter is the one related to the theme of smart grids and batteries which are increasingly strategic to circumvent the variability of natural sources, but also on this front technology is moving towards increasingly commercial over-the-counter solutions and costs will soon consequently drop.

➜ *Talking about costs, until now businesses and individuals have struggled to see the economic convenience of energy produced from renewable sources. What is the key to overcome this obstacle?*

According to the latest report by the International Energy Agency, the cost per megawatt-hour from renewables has already reached parity or is even lower than electricity generated from fossil sources and therefore also prices for power plants are increasingly competitive, especially considering that investment pays for itself very quickly as the fuel is available in nature free of charge. PPAs, Power Purchase Agreements, long-term contracts with which plant builders become exclusive suppliers for companies for at least 10 years at a fixed price, with benefits accruing to both parties, are also working very well. It is a model that has become established in Nordic countries and is now spreading also in Italy. For the private consumer, however, the issue varies from country to country and depends on how the market is regulated. Where there is traceability of the so-called "green electron", then you pay the price based on generation from renewables, but where instead electricity from the different sources flows into a single stream, this distinction is not possible and bills are not differentiated.

GIOVANNA CHIARA Graduated in chemical engineering from the Polytechnic of Turin, and obtained an EMBA from SDA Bocconi School of Management. "At some point in my career, I realized I needed to add business skills to my scientific background," says. "I had a great hunger for this kind of knowledge and a desire to change perspectives in approaching the industry and project finance because I lacked a holistic vision of the company". Formerly manager at Iberdrola in Spain and then head for General Electric Renewable Energy of the tenders for offshore wind farms, today she follows the development of waste-to-energy plants in Zurich for the Swiss-Japanese corporation Hitachi Zosen Inova.



➜ *Why is it so difficult to start the construction of new plants in Italy?*

Having never worked in Italy, I cannot express myself, but in general the issue is always political. Technology moves where there are favorable laws that push investment in the right direction. Of course, it is to disconcerting to read that Spain meets 36% of its electricity needs with renewable sources and in Italy we are stuck at a paltry 12%.

➜ *You also have a strong green awareness, you don't use plastic, don't have a car... What do you think of nuclear power?*

I think it has indisputable advantages because it guarantees a baseload, or basic supply of energy, which is constant and reliable, without the typical variability of natural sources. I believe in progress, in the safety of power plants and above all in a solution of the problem of processing nuclear waste. That said, no single technology is the solution to the energy problem, but a plurality of power sources will have to be employed.

➜ *Would you return to work in Italy? Maybe for the institutions or for a public administration to facilitate the recovery of the gap with other European countries?*

If there really were the possibility of working in a similar role, I would be happy to do it, because it is a subject I know well, a job that I love and in which I strongly believe, even if there is a still a lot of ground to cover. On the waste issue, however, I am discovering that Italy is not so far behind as on other fronts; there are macroscopic emergencies like that of Rome, but also forms of excellence in other municipalities. However, we must unblock the new plants: here in Switzerland there are dozens of waste-to-energy plants in operation, also because "landfilling has been banned, while in Italy it is not even possible to build a single one… It would be useful to have a common EU policy on the issue." ■

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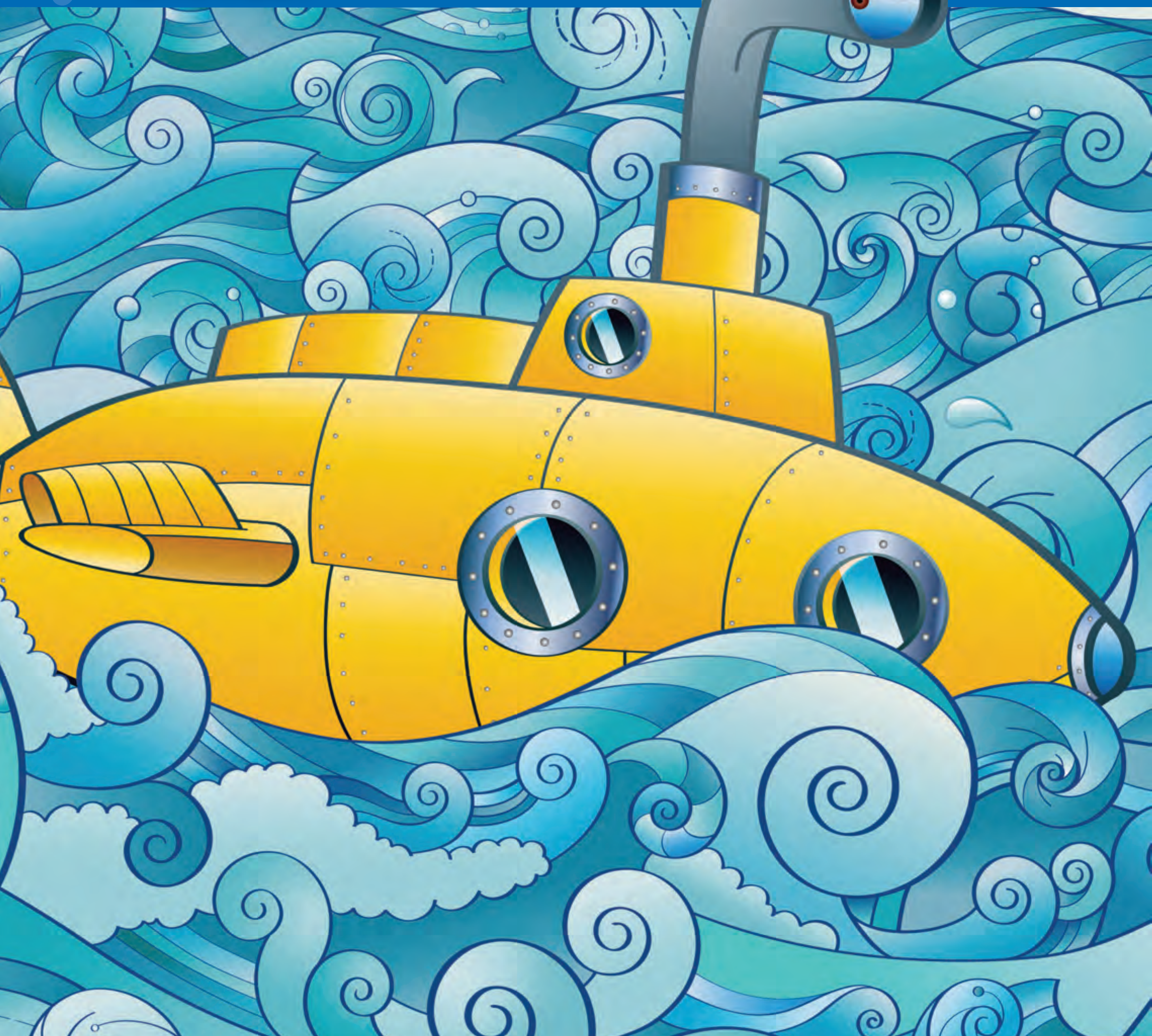

by Andrea Fosfuri @

Protected but invisible to the eyes of competitors: that is how technology companies are able to establish exclusive worldwide rights over the names of their new products

The Atlantis of su

LEGGI L'ARTICOLO IN ITALIANO

What do iPhone, iPad, Apple TV, Google Chrome, Nest, Kindle Fire, and Amazon Echo have in common? Apart from being successful products and services by tech giants, they are all protected by "submarine trademarks". Trademarks are intellectual property rights that companies use to protect their brand names, logos, slogans, designs, and other visual and sensory elements from copycatting and imitation by competitors.

Filing early, even before the new product or service is released, lowers the risk of conflict with competing trademarks, regardless of their motivations. Conflict with a prior filing may prohibit registration and force rebranding, which in turn might affect a firm's competitive stance in the product market. So firms would be well-advised to seek protection early on. However, because companies must describe in some detail the product or service the trademark seeks to protect in the application, this information becomes public knowledge. This has at least two important drawbacks.

First, early disclosure in a trademark application may prompt competitors to adjust or accelerate their own product development plans, expedite imitation, and ultimately undermine a company's market positioning and first mover advantage.

Second, companies often announce new products and services at splashy events that occur every year around specific dates to create predictability and significant media buzz. For instance, every year in June, an army of consumers is expectantly waiting for Apple to announce batches of new products at the Worldwide Developers Conference. Most often, consumers do not know in advance which products will be released, their main features, and especially the names the company will use to market them.

ANDREA FOSFURI
Full Professor of management of innovation, Bocconi University

The above arguments suggest that firms are faced with the choice between securing legal protection for new products and brands as soon as possible, and inadvertent information disclosure, which arises from trademark publication. Going "submarine" is a trademark protection strategy that firms can implement to evade such a trade-off. The strategy entails initially filing a trademark application in a remote country that lacks an easily searchable trademark database. This initial application establishes the priority date at which trademark protection begins and may be extended to other countries under international treaty agreements. For example, when Apple launched its Apple Watch on September 9, 2014, it first filed the corresponding trademark application in Trinidad and Tobago on March 11, 2014, establishing trademark rights 6 months before the US trademark application was filed on the same date as the product launch announcement. Because Trinidad and Tobago does not have an easily searchable trademark database, Apple's priority application only surfaced when the company filed to register the trademark at the USPTO and extended that registration globally.

In a recently published paper in the Journal of Economics and Management Strategy, in a joint paper together with Carlsten Fink (WIPO), Christian Helmers (Santa Clara University) and Amanda Myers (Booz Allen Hamilton), I have provided the first systematic empirical analysis of the submarine trademark phenomenon. We show that submarine trademarks, while small in number, are growing rapidly and relate to some of the most prominent products and services introduced in the tech industry in recent history. They are effective in blocking rivals thanks to the priority right acquired by filing in a submarine haven. Submarine filing strategies allow companies to establish an exclusive worldwide right to their new product brand names half a year before revealing them to the public and competitors. They are used for their most valuable goods and services and for trademarks that are at higher risk of conflict. ■

THE PAPER

Submarine trademarks, by Carsten Fink, Andrea Fosfuri, Christian Helmers, Amanda F. Myers

bmarine brands

How to deal

The advice of financial economists to avoid being overwhelmed by the next market turbulence stoked by a dearth of financial literacy among small investors

by Claudio Tebaldi @

CLAUDIO TEBALDI
Director of the Algorand Fintech Lab , Bocconi University

As announced, monetary tightening sparked a sharp reduction of digital token valuations and a sequence of distress events is now rippling through cryptocurrency markets. No question that this news is like déjà vu, the outcome of a recurrent 'financial sin' starting with a wave of irrational exuberance, ending with losses and collective anger against the 'greedy ones'.
In November 2008, on a visit to the London School of Economics (LSE), Queen Elizabeth II asked her hosts: "Why did no one see it coming?". She was referring to the financial storm of 2007/8. To avoid that the Queen's question resonates once again, let us take a look back and reconsider the vicissitudes that are taking place in decentralized markets leveraging on the body of research that financial economists have produced dissecting past financial crises.
The first advice is to refrain from the dangerous 'this time is different' narrative, claiming that the old rules of valuation no longer apply and that the new situation bears little similarity to past disasters. Decentralized markets are certainly made possible by a newly introduced technology, blockchain protocols, but the digital innovation layer should not hide the common traits that the unregulated growth of the cryptocurrency market shared with past episodes of uncontrolled financial expansion.
Consider for example the regulation under discussion aimed at reducing the impact of distress of stable-coins, it will necessarily have many similarities with the prudential approach established after 2008 to limit systemic risks created by money market funds.
During the big financial crisis excessive risk taking was driven by predatory lending practices that targeted low-income homebuyers. Similarly, crypto finance is characterized by an unprecedented ease of accessibility to financial products. DeFi (decentralized financial) applications target broad population segments, ranging from young millennials to unsophisticated consumers

THE LAB

The mission of the newborn Bocconi Algorand Fintech Lab is the development of better policy protocols and implementation tools, to deploy the body of knowledge accumulated in social sciences to produce a quick convergence toward efficient adoption of innovative products.

LEGGI L'ARTICOLO IN ITALIANO

with Crypto Winter

PODCAST
Looking beyond the Crypto Winter... With cryptocurrencies in a period of depressed prices, in the new Story Scanner podcast Massimo Amato,professor and director of the Observatory on Monetary Innovation, New Technologies & Society (MINTS) at Bocconi, discusses what lies ahead, if stability is a mirage and if regulation is the answer to provide greater transparency and protection.

living in emerging countries.
In principle, extended participation is a positive spillover of financial innovation. However, another lesson we learned is that the effective ability of household consumers to capture the profits arising from financial innovation is severely limited by the existence of a financial literacy gap.
In simple words, the major threats to investors' safety do not arise because they do not understand how digital technology works. It is the lack of financial knowledge that limits the ability of investors to benefit from new opportunities.
Consider for example the notion of 'trust' in blockchain economics. Blockchain protocols are usually claimed to be "trustless", meaning that you don't have to trust a third party for the validation of a transaction: a bank, a person, or any intermediary that could operate between you and your cryptocurrency transactions or holdings. On the other hand, financial economists have empirically verified that trust in a specific financial system, i.e. the willingness of members to act together to pursue shared objectives, is a necessary condition for the creation of a robust market.
Surprisingly, while the technical properties enforcing the 'trustless' nature of a protocol are usually well explained, far less is known about the organizational 'trust' that is determined by social and governance characteristics of the ecosystems created by the community of blockchain developers and adopters.
To foster more inclusive financial development, policy actions should therefore target the transparency on these organizational characteristics also in the crypto space. In this respect, a proper definition and regulation of the so called DAO's, Decentralized Autonomous Organizations, is certainly the most important step, yet to come.
A second interesting advice from current research is that information technology can be deployed to assist rather than harm investor's choice. Behavioral economists have shown that suboptimal selection of financial instruments may derive from cognitive biases that are by now well understood. Machine learning offers the possibility to implement efficient scalable advisory services at low prices to help the broad public avoid these behavioral traps, thus reducing the costs of uncontrolled financial development. ■

Covid aft

We all want to forget the darkness of the last two years, but we cannot let our guard down, also because the data tells us that vaccination campaigns, worldwide, are far still far from targets. The virus is still evolving and our perspective to tackle it must remain global

by Alessia Melegaro @
Stories by Camillo Papini

THE LAB

Covid crisis lab's mission is to understand the spread of the COVID19 and analyze its numerous implications on the health of populations, health care, society, the economy at large and its financial and legal consequences

ter Covid

After having lived through two and a half years of the Covid19 pandemic, we start again a new academic year, a new school year for our children, and a new year of social life, in the broader sense of the term. The pandemic hurt us badly, it made us feel the suffering of the disease with almost 6.5 million deaths (171,911 in Italy) and over 600 million confirmed cases in the world. It introduced us to the darkness of loneliness and isolation, the fear of uncertainty and the precariousness of planning. But we are strong, and we are starting over, some with more enthusiasm and some with lingering fear, but all well aware of the fragile balance in which we find ourselves.

According to WHO data, the number of cases in the last week of August fell by 16% compared to the previous week, and so did the number of deaths globally which fell by 13%, even though in Southeast Asia there was an increase. The numbers, however, must be taken with a grain of salt, given that in many countries testing policy has progressively changed and so has people's compliance in reporting positivity.

ALESSIA MELEGARO
Director of Covid Crisis Lab, Bocconi University

The Omicron variant, with its high transmissibility rates and reduced morbidity, especially among vaccinated and people that do not present other conditions, still remains the most prevalent one, with 99.6% of global cases sequenced over the last 30 days. Restrictions have gradually disappeared in most countries, with the reduction also in the number of days of isolation – which has gone down from 7 to 5 in Italy for asymptomatic cases, and from 21 to 14 days for cases that still test positive after two weeks – and the abolition of the obligation to wear a face mask, except on means of transportation and in hospitals and nursing homes.

We all want to start again, put the pandemic behind ourselves and forget about green passes and all the rest, but if we did that, that could be our worst mistake. Vaccination campaigns launched globally are far from being on track and the global imperative that WHO set out to vaccinate at least 70% of people in all countries of the world by June 2022 still remains wide of the mark. Inequalities in the

distribution of vaccines persist and more than 30% of the world population has yet to receive their first dose of vaccine, not to mention the fact that in poor countries of the world only 21% of people have been vaccinated. Even in industrialized countries a significant percentage of the population continues to refuse vaccination. In Italy, over 6.8 million of people are not vaccinated and a very low percentage of over 60s that are eligible for the fourth dose of the vaccine are indeed vaccinated (5.2% in the 60-69 age bracket; 9.5% in the 70-79 and 29.4% in the 80+ age brackets).
Vaccination hesitancy has grown alarmingly over the last two decades, especially in advanced countries, perhaps fueled by poor communication policies and by a lack of investment in territorial medicine, leaving to social media and peer communication the task of handling the information. The pockets of susceptibles, combined with the low protection of current vaccines against infection, keep transmission high and, consequently, the emergence of new variants of SARS-CoV-2. It is essential to maintain surveillance and continue monitoring the circulation of the virus.
The situation remains complex. Two and a half years of the pandemic should have taught us that even when things seem to get better, we cannot in fact relax and let our guard down. The virus is still evolving, the perspective from which we observe it must continue to be the global, and our collective behavior remains the main form of deterrence in the pandemic. In addition, several other challenges need our attention, including the impact of the infection on medium- and long-term physical and psychological health, including children's, the effects of the pandemic on vaccination coverage for other infectious diseases (measles in particular but also influenza) and the development of strategies to increase individual adoption of prevention policies that are put in place by health policymakers. And if Covid weren't enough, since May there have been over 54,000 cases of monkeypox in 100 countries, 787 of which registered in Italy. Although the infection has very different characteristics from SARS-CoV-2, the lessons we learned during the pandemic should come in handy. In particular, well-organized surveillance on the evolution of the epidemiological situation, the definition of clearer and more effective communication strategies than those we have seen in the recent past, strategies that bring back trust in the whole health care system and, last but not least, attention to individual and group behavior, and their determinants. The uncertainty that characterizes the arrival of a 'new' infection in one's territory is an essential fact. It is up to us to systematize all the skills and capacities to find an effective way to contain it. ■

MARIA CUCCINIELLO Emotio

Since there is a currently talk of the necessity of a new vaccination campaign, it becomes even more important to reach out to all segments of the population. Communication targeting even the most doubtful about the need of getting vaccinated can focus on three elements of persuasion, all three played on the emotional front. And the messages full of information and scientific details? They are less effective. Instead, the most convincing contents to be conveyed are those that recall personal experiences of vulnerability and dependence, that invite to follow the social rules centered on cooperation among citizens, with a view to herd immunity, and third, finally, that put the emphasis on the presence of vulnerable individuals that need to be protected in the different environments that people inhabit every day.
Moreover, "campaigns with many details tend to confuse and reduce the understanding of the information received. On the other hand, a more emotional but also more fluid, simplified and brief way of communicating can generate a higher rate of reception from the the public", underlines **Maria Cucciniello**, Associate professor of the Department of social and political

LORENZO GASBARRI The

LORENZO GASBARRI
Research fellow,
Department of Law,
Bocconi University

Legal training and first-person experience come together in this article written by **Lorenzo Gasbarri**, entitled *The thin line between farce and tragedy: my covid story between Italy and Guatemala*. The intention is to look back to review, one after the other, all the phases of the pandemic and, above all, to observe from the inside how other countries in the world have experienced and managed the pandemic, often starting from a disadvantaged position. Guatemala, for example, where the research

LEGGI L'ARTICOLO IN ITALIANO

ns are the right weapon to persuade individuals to get vaccinated

sciences at Bocconi University, who wrote *Altruism and vaccination intentions: Evidence from behavioral experiments*, together with **Alessia Melegaro** (Department of social and political sciences, Bocconi) and with **Paolo Pin** (Bocconi Institute for data science and analytics), **Blanka Imre** (Department of economics, Bocconi), **Gregory A. Porumbescu** (School of public affairs and administration at Rutgers University, Newark, USA). The investigation, carried out in the pre-Covid period, was conducted in the laboratory through an experiment based on a game logic and on a sample of university students. In parallel, also in 2018, a similar research was carried out but with parents of children under 5 years of age. In addition, a survey was conducted in 2021 in various countries (Italy, USA and UK) not only to take into account the full impact of the pandemic but also to arrive at a representative sample of the population, by age, gender and education, equally divided between vaccinated and unvaccinated individuals. However, already thanks to the first paper, "the importance of both the kind of the content used and the communication format chosen emerges. And the relevance of this approach can be deduced from how a way of communicating that is too objective and dense with data and detailed information can have an opposite effect to the desired one", concludes Cucciniello.

MARIA CUCINIELLO
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THE PAPER

Altruism and vaccination intentions: Evidence from behavioral experiments, by Maria Cucciniello, Paolo Pin, Blanka Imre e Gregory A. Porumbescu, Alessia Melegaro

experience of the pandemic, between rules and inequality

fellow and contract professor of public international law at Bocconi University stayed for several months, alternating with periods in Italy. The result was a report that is part of a symposium of the International Journal of Constitutional Law, which called for papers to bring together writings not only of a legal but also of a personal nature, with particular attention to the pandemic-inequality relationship. From his experience in the Central American country, Gasbarri first of all captures how "the early narratives, which saw the pandemic as the first global event capable of bringing together all the peoples of the world, now seem highly improbable".
Lockdowns, interruptions in school lessons, street protests and even prison riots have been common consequences for Italy and Guatemala, without forgetting the strategies of the respective governments that were not always coherent at face value. But all these issues emerged for different reasons, and in the Central American case, especially exasperating conditions of previous social hardship. "If anything, in order to proactively look to the future and to contrast possible new health crises, legal issues that have remained open in international law must be addressed", relaunches Gasbarri. "I'm thinking about the need to have updated and enhanced international health regulations with greater obligations and sanctions for individual states, encouraging them to promptly declare the emergence of new viruses."
Furthermore, in the opinion of the adjunct professor of public international law, the effectiveness of the hypothesis of completing and strengthening health regulations by means of a Treaty on Pandemics, negotiated by WHO, must be analyzed. "Overall, it is a question of finding a delicate balance in the adoption of anti-contagion measures," concludes Gasbarri.
"In fact, every time a state imposes more onerous measures than those indicated by the World Health Organization, global repercussions are created, among other things in the field of trade, which can be very heavy for weaker countries". Thus, the final result is the further exacerbation of already existing inequalities.

LETIZIA MENCARINI Covid restrictions hit women's and young people's mental health harder

The unprecedentedly severe restrictions meant to stem the spread of the COVID-19 virus certainly achieved their immediate goal of saving lives by limiting the potential exposure to the virus, in particular of vulnerable people. However, these measures have also had a lasting impact on the mental health of large sections of the population. A study by **Veronica Toffolutti, Samuel Plach, Teodora Maksimovic, Giorgio Piccitto, Letizia Mencarini** and **Arnstein Aassve** of the Dondena Centre for Research on Social Dynamics and Public Policies with **Massimiliano Mascherini** (Eurofound) finds that these effects on psychological wellbeing have hit certain social groups harder, especially (but not exclusively) women with children living at home.
The study, the first of its kind, aimed at tracking the association of 13 specific personal restrictions (non-pharmaceutical policy interventions, NPIs) with the mental wellbeing (MWB) of residents in several European countries. The data come from the Eurofound survey "Living, Working and COVID-19", which was conducted gathering demographic and socio-economic characteristics for more than 150,000 individuals from the 27 EU-member states and the UK. From this group a sample of over 15,000 individuals was extracted for the interviews.

THE PAPER

The association between COVID-19 policy responses and mental well-being: Evidence from 28 European countries, by Veronica Toffolutti, Samuel Plach, Teodora Maksimovic, Giorgio Piccitto, Massimiliano Mascherini, Letizia Mencarini, Arnstein Aassve

LETIZIA MENCARINI Full Professor of Demography, Bocconi University

As a whole, the study found MWB variations of -3.9%, for international travel restrictions; -1.5% for restrictions on private gatherings; -1.4%, for contact tracing NPIs; and +1.8% for workplace closures compared to pre-pandemic MWB levels. In other words, workplace closure has actually boosted people's mental health, but that was the only positive effect. Crucially, there have been significant differences between social groups: results suggest that some of the groups with alarmingly low pre-pandemic MWB levels were suffering the most. For instance, before the pandemic women's average MWB level was already considerably lower than that of men. Those gaps widened during the pandemic, and this very possibly indicates that disparities themselves have grown.
"All evidence points to the conclusion that those groups who perceive themselves in a less stable, riskier condition suffered more," Professor Mencarini says. Such groups include women, people with lower education levels, young students. There is also a significant difference between Western countries, which generally have better welfare systems, and the poorer Eastern Europe.
While curbing the impact of the COVID-19 virus on the health systems was clearly the overarching purpose of all non-pharmaceutical policy interventions, these findings suggest that they were designed without sufficient attention to preventing their consequences on the mental health of vulnerable groups. "More cooperation and more uniform COVID-19-related NPIs might decrease disparities in how the pandemic hits different European countries and reduce the need to restrict movements between them," Prof. Mencarini concludes.


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by Arnaldo Camuffo and Alfonso Gambardella @

Higher operational performance is the most obvious, but not the most important, consequence of digital transformation. In fact, by automating high-frequency but low-impact decisions, managers can better focus on strategic decisions, while new managerial job profiles are being born

Making decisions in the digital age

Why do superstar firms characterized by hyper-growth emerge in the digital era? Why are public, managerial corporations eclipsing in favor of concentrated ownership, agentic investors and high financial leverage? Why do owners/entrepreneurs remain at the helm of firms and keep running them even if they become complex and large? Why do firms increasingly rely on M&As and external growth flexibly, reconfiguring their knowledge base and assets? Why do firms become increasingly customer-centric and tend to experiment more?
These apparently unrelated trends have instead common grounds in the effects of the digital revolution on the functioning of firms. Digitalization changes the nature of firms, radically transforming strategic decision-making and strategic management.
As highlighted by a recent Strategic Management Review article and a recent CEPR discussion paper,

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THE COURSE

Strategic innovation in the digital era explains how to use data to make strategic decisions. This is an important opportunity in the light of the huge availability of data associated with the digital revolution.

superior operational performance is the most apparent but not the most important consequence of digitalization. It becomes a major source of competitive advantage when complemented with the ability to better explore markets, profile customers, tap into their needs and design products and services accordingly. There are three complementary conditions that can produce superior performance out of management cognitive time and effort spent on low-frequency/high-impact decisions: a) the adoption of a "scientific approach" to decision-making under uncertainty; b) the embracement of uncertainty as the ultimate source of economic growth; and c) the redefinition of business owners' role as strategists.
Digitalization and algorithms flatten organizational structures, shorten business process cycles, modularize and externalize activity sets and units, replace or at least change operational and managerial jobs, and modify the correspondent skill requirements. As data, algorithms, AI and machine learning allow to digitalize high-frequency/low-impact decisions, managers can dedicate more time and attention to strategic, low-frequency/high-impact decisions. Differences in the amount and quality of managerial time and attention available for strategy, along with

LEGGI L'ARTICOLO IN ITALIANO

differences in the effectiveness of strategies, represents a major source of variation in firm performance.

So, from the managerial standpoint, the automation of high frequency/low impact/low uncertainty decisions has two potential implications. First, other things equal, it frees-up cognitive resources that can be dedicated to making low frequency/high uncertainty/ high impact decisions. Second, as it hollows out traditional managerial jobs which are no longer needed to make high-frequency/low-uncertainty decisions, it also generates new managerial jobs needed to support the digitalization/automation process and to make low-frequency/high-impact/high-uncertainty decisions. ■

THE RESEARCH

The ION Management Science Lab conducts research on how firms make strategic decisions and design their organizations as they become increasingly digital. Its research focuses on strategic decisions regarding ownership, governance, capital structure, innovation management, organization design and the staffing of top management teams. The Lab aims to do so with an interdisciplinary approach blending scholarship from management, economics, decision science, computer science and cognitive science.

THE PAPER

Framing Strategic Decisions in the Digital World, by Arnaldo Camuffo, Alfonso Gambardella, Andrea Pignataro

Four possible futures

Back to normal, back to the future, regionalization, or Armageddon. Four alternative endings for the phase of deglobalization we are experiencing. History can help Western governments mount a coordinated response to current crises, but with a caveat: the historian's task is not to predict the future, but to recognize recurring patterns from the past and highlight differences and lost opportunities

by Valeria Giacomin @

A new deglobalization phase is accelerating. The world experienced an abrupt transformation with the start of the Covid pandemic in 2019, exacerbating the disintegration of global value chains. However, a general slowdown of global integration had been in motion for more than a decade. Since the beginning of the industrial era in mid 18th century, the world has witnessed various globalization waves. Moments of acceleration in the pace of economic, political, and cultural integration across regional and national frontiers have been interrupted by escalations in international political tensions as wells as declines in the flows of trade, capital, and people. Since the 1840s with the start of the second industrial revolution, the world economy experienced a period of rapid acceleration of international trade, (often forced) political integration under colonial rules, and booming migratory flows. The year 1914 marked both the highest growth of global interconnections via trading routes, with the inauguration of the Panama Canal, and a massive shock to the globalization process, with the start of World War I. The unprecedented scale of WWI sparked the "first deglobalization" phase, which continued through the great Depression, WWII, and the Cold War, before only coming to an end in the late 1970s. Specifically, the interwar period featured three main elements that we can recognize today: (i) the contraction of capital and trade flows, due to the introduction of trade barriers; (ii) the emergence of authoritative regimes gaining consensus through populist rhetoric; and (iii) the increased role of governments, who accessed new technologies to collect and analyze large amounts of data about their citizens. Decolonization, the decline of the Soviet Union, and the triumph of capitalism inaugurated a new cycle of globalization in the last decades of the 20th century. China's transition towards a market-based economic system and the launch of liberalization policies in several major emerging economies such as India, Turkey, and Brazil, cemented this process. 2001 represented another major turning point in global politics. The first direct attack on US soil

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since Pearl Harbor led to a series of conflicts in the Middle East that are still unsolved today. In December 2001, China joined the World Trade Organization marking a moment of unprecedented commercial integration, fueling its already tumultuous growth, and setting its economy to challenge the global hegemony of the Unites States.

The first two decades of the 21st century set the stage up for increasing tensions and the expectation of a decline in the economic and geopolitical supremacy of the West. Four main elements help us make sense of the new deglobalization cycle. The rise of global terrorism that since 2001 increased global political tensions and created instability. The global financial crisis in 2008 marked a major inflection point in terms of economic integration, which severely dropped and never fully recovered. In the 2010s, new authoritarian regimes emerged in Russia, China, Turkey, and Hungary among others. The rivalry between China and the US intensified with the leadership of Xi Jinping, who launched the Belt and Road Initiative in 2014, a new model of alternative globalization, which places China as the main political leader and economic partner for more than 160 countries. After the Covid pandemic the levels of economic and financial integration reached a new low and global value chains started to disintegrate. Is this the end of globalization? Perhaps these events are leading to a major structural shift, and the start of its transformation into a new version of economic integration, which will involve more exchange of ideas and intangibles, and less movement of physical goods. In a technical note that I wrote with my colleague Geoffrey Jones from Harvard Business School, we draw four possible scenarios ahead:

Back to Normal: the recent shocks like the Covid pandemic and the war in Ukraine are just temporary setbacks, and globalization will resume;

Back to the Future: we can expect disintegration to expand even further reaching new levels of autarchy and barriers to trade like the ones recorded in the interwar period;

Regionalization: integration will continue but on a different geographical scale. Trade, capital, and migration flows will redirect within separate blocks each anchored to different economic leaders, which will be coordinating integration while competing with the other regions;

Armageddon: the weakening of global norms and institutions might lead to a new global conflict after over 70 years since the end of WWII. This time, however, the opposing sides have nuclear arsenals. The current conflict in Ukraine has been indeed raising more immediate concerns about potential devastating consequences for the stability of the world system.

The historian's job is not to forecast the future, but rather to stress the recurring patterns, differences, and lost opportunities of the past. History can be of help to Western governments in crafting a coordinated response to the current crises. Hopefully, this entails stronger democratic institutions and enlightened economic policies that prioritize a more balanced distribution of income and pragmatically address grand challenges such as climate change and new potential pandemics. ■

THE PAPER

Deglobalization and Alternative Futures, by Geoffrey Jones and Valeria Giacomin

Guardians of demo

To make our liberal democracies stronger with respect to the autocratic tendencies that today are occurring everywhere in the world, the role of universities is fundamental in promoting fact-based inquiry, civic education and political pluralism

by Justin O. Frosini @

JUSTIN O. FROSINI
Director of Bachelor in Global law, Bocconi University

"Democracy is so overrated" is one of the best lines uttered by the ruthless Frank Underwood in House of Cards, and yet if we take a quick look around the world democracy doesn't seem to highly rated at the moment. Terms such as democratic backsliding, democratic decay or democratic retrogression are constantly on the lips of political scientists and comparative constitutionalists. Using Samuel Huntington's famous description of the pattern of global democratization, many observers would argue that we are currently in the midst of a "reverse wave" with liberal

cracy

THE BACHELOR

The Bachelor in Global Law, taught in English, is intended to provide the knowledge and skills that are essential to carry out innovative legal professions increasingly sought for in the international context of institutions, companies, and other organizations.

democracies receding in favor of illiberal or hybrid regimes that often become fully fledged autocracies over time. Much ink has been spilt trying to elucidate the reasons for this backsliding, but of course there is no mono-causal explanation for this phenomenon and no one-factor cure. One explanation for the shift away from liberal democracy can possibly be found in a speech Viktor Orbán gave at Băile Tuşnad (Tusnádfürdő) in 2014: "The defining aspect of today's world can be articulated as a race to figure out a way of organizing communities, a state that is most capable of making a nation competitive. This is why a trending topic in thinking is understanding systems that are not Western, not liberal, not liberal democracies, maybe not even democracies, and yet are making nations successful. I believe that our political community rightly anticipated this challenge. We are searching for the form of organizing a community, that is capable of making us competitive in this great world-race."

In essence Orbán and his emulators claim that liberal democracies are simply not competitive and therefore need to be superseded. Liberal democracies are slow and chaotic, while illiberal democracies (or should we simply say autocracies?) are fast and coordinated. Yet, what is interesting from a constitutional perspective, is that traditional, and expeditious, methods for regime change such as military coups have been on the decline. Constitutions and the law have become key instruments in building, consolidating and legitimizing the rule of autocratic leaders. In exploring the role of constitutionalism in illiberal regimes some comparative constitutionalists, such as David Landau, have developed the concept of "abusive constitutionalism" i.e. the use of the mechanisms of constitutional amendment to undermine democracy. Worldwide we have seen powerful incumbent heads of government and parties engineer constitutional changes so as to make themselves very difficult to dislodge and defuse the system of checks and balances. Often, however, these changes are not sudden and coordinated, but are made in a piecemeal fashion and there is no moment where one can say the regime has crossed the red line. In other words, democracy's erosion is sometimes imperceptible. But the warning signs are there if you know what to look for. Be wary of a leader who rejects, in words or actions, the democratic rules of the game, denies the legitimacy of opponents, tolerates violence or indicates a willingness to curtail the civil liberties of opponents, including the media.

Despite the ceaseless efforts of constitutionalists and political scientists, no constitutional design is totally immune to democratic backsliding, but we can all play a role in upholding the values of liberal democracy. One role that is often overlooked is that of the very institution we operate in. As Ron Daniels, President of Johns Hopkins University, argues In What Universities Owe Democracy (2021) we need to reestablish our place in democracy. As Daniels suggests, if we strive for greater social mobility, put citizenship education at the center of our curriculum, act as guardians of facts and foster a pluralistic community, we can make our liberal democracies less vulnerable to the whims of political leaders with autocratic tendencies. ■

THE BOOK

When we think of a democratic form of life, we think of a political regime that accommodates different institutions, norms, procedures, and political interpretations of the long-term public interest. We consider all these as fundamental elements of a liberal democratic regime that, precisely because of them, distinguishes itself from any illiberal, autocratic or authoritarian regime. This picture, certainly faithful, is at the same time incomplete, as Salvatore Veca explains in *Il mosaico delle libertà* (Egea, 2021, 128 pp., €15, in Italian).

Breaking the ICE

China's striking catch-up process in electric mobility has made the country, in little more than 10 years, an industry leader by putting aside the Internal Combustion Engine

by Nicoletta Corrocher @

Over the last decade, China has promoted electromobility more firmly than any other country. Around 2009, the government firmly shifted gear towards electromobility and in the more recent 'Made in China 2025' plan defined "New Energy Vehicles" as one of the seven strategic emerging sectors with the aim of reaching 80% EV share in total Chinese car sales and 20% share in the total vehicle stock by 2025. A comprehensive policy package was developed to promote electromobility, including measures directed to firms, e.g. restriction policies on new vehicle registrations and mandatory electric vehicle percentage targets; purchase subsidies for consumers - 4.5 billion euros between 2009 and 2015; and public procurement together with government-funded research. As a result, between 2015 and 2020 the stock of electric passenger vehicles increased from 0.3 to 4.5 million and in 2020 44% of the world's electric cars circulated in China.
Many Chinese firms were able to catch up and even leapfrog ahead of their international competitors in electromobility-related technologies. There were no Chinese firms among the global top 20 patent applicants until 2006. Ten years later, half of the top 20 applicants were from China. The increase in China's world share of patents (from 4.4 % in 1994 to 39.3% in 2014) went hand in hand with a growth in the quality of patents, as shown by the increasing number of applications at international patent offices and by the growing number of Chinese patents' citations. Four Chinese manufacturers are now among the global top ten in the EV market - BYD (10.0% of the world market share), BJEV (7.1%), SAIC and Geely (3.4% each) - in stark contrast to the ranking of traditional car manufacturers, where the top ten are all non-Chinese.

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Technological leadership has been fully achieved in the production of electric buses, with China having 98% of the 513000 electric buses operating worldwide in 2019. In most of the big cities, the electric buses' share in the public bus fleet exceeds 50%, with Shenzhen achieving full electrification of its 17000 bus fleet in 2017. Five

LEGGI L’ARTICOLO IN ITALIANO

THE BOOK

The issue of sustainable mobility has a central position on the European and global political agenda today. But firstly it must be placed at the center of a conscious choice by every citizen, starting with the younger generations. And it is to citizens, as well as to political decision-makers, that Renato Mazzoncini addresses in *Inversione a E* (Egea, 2021, pp.160, €19, in Italian) with respect to the need to shift to environmentally-friendly forms of mobility.

bus manufacturers dominate the Chinese market and two of them, BYD and Yutong, are successfully exporting and rapidly expanding their global networks of assembly plants. In Europe, the home of leading diesel bus companies (Volvo, MAN, Mercedes and Solaris), BYD (29% e-bus market share) and Yutong (7%) successfully compete with incumbents, despite the latters’ long-established service networks and ties with local transport operators.

Chinese firms are also at parity with Japanese and Korean multinationals in the lithium car battery value chain, with 73% of world lithium-ion battery cell manufacturing and 101 of the 136 lithium-ion battery plants that by May 2020 were in the pipeline to 2029 concentrated in China. Contemporary Amperex Technology Co Ltd. (CATL) has become the world’s largest battery maker since 2017, and BYD Lishen Battery and Guoxuan High-Tech are also among the world’s top firms.

It took China little more than a decade from starting to invest in batteries to become the largest world manufacturer; from producing the first electric bus to capture 96% of the world market; from being absent in the technological development, to producing almost 40% of total patents. In ten years, companies such as CATL in batteries and BYD in bus manufacturing have become global leaders. This speed suggests that catching up and leapfrogging may also be expected in other market segments, especially in the emerging fields of autonomous and connected driving and new mobility services, where China may challenge and eventually outcompete globally leading technology companies. While the technologies are still at an infant stage, the large number of start-up companies with financial backing from internet giants Tencent, Baidu and Alibaba make these market segments likely candidates for the next Chinese leapfrogging success.

THE PAPER

China's leapfrogging in electromobility. A story of green transformation driving catch-up and competitive advantage, by Tilman Altenburg, Nicoletta Corrocher, Franco Malerba

Beyond iniquity

The Italian national health service can only be rhetorically considered universal, because it is actually fragmented and does not guarantee equity in access due to imbalances in private spending. Four moves to reverse this course

by Mario Del Vecchio and Francesco Longo @

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Italy is one of the countries with the lowest birth rates in the world (1.2 children per woman; a rate of 2.2 would be needed to keep the population stable) and one with the highest life expectancies. In 2019, Italy had 25.9 million people in employment and 13.8 million retirees. ISTAT, the Italian national statistical agency, predicts 22 million workers and 19 million retirees by 2039, a relationship that is not sustainable from a social, economic and political point of view. The repercussions fall squarely on the Italian National Health Service (SSN), with an inevitable and progressive reduction of the tax base – and therefore of public resources available for spending – combined increasing needs due to aging. Despite growing needs, it's public finance that constrains the choices. Government planning foresees a 6.2% ceiling on public expenditure in health with respect to GDP from 2025. In European comparative terms, Italian public spending on health is parsimonious, at 50% less than French and German spending (public health spending: 9.5% of GDP). The Italian national health service is characterized by substantial fragmentation and inequity in access generated by the €40 billion of private spending disbursed by families, to which €9.6 billion out-of-pocket payments to assist 3.8 million disabled people must be added, as well as INPS social security transfers for another €9.1 billion (assistance-to-the-disabled checks) that go to feed the private market for care workers. If we compare the total (about €58 billion) of health care expenses incurred by families with the €126 billion spending of the Italian national health service, it is clear that this ratio of one to two is far from the universalistic logic that inspires the latter. Furthermore, current economic policy debate continues to favor the support of private spending through monetary transfers to families, sacrificing the hypothesis of an increase in real welfare services such as the national health service.

The inequity is explained by the non-correlation of private spending with the shortcomings of the public system, which is instead correlated with the income of territories and households. It is the richer regions of the north, which have the best performing public systems, that have the highest level of private spending. Similarly, wealthier families, already more capable in accessing public health care, spend more on private services.

What is the €40 billion in health spending by households made up of? Private health care expenditure, as reported by the SDA Bocconi Observatory on Private Health Consumption, is largely out of pocket with €568 per inhabitant (2020), while spending brokered by funds, mutual funds or insurance policies amounts to €70 per inhabitant. It is distributed along the entire supply chain with a concentration on outpatient services (about 50%), on drugs and medical devices (38-40%), with the remainder for hospitalization (10-12%), which remains covered by national health service. While during the COVID period there was a slight contraction in private spending, the current difficulty the Italian national health service in disposing of the waiting lists generated by the pandemic feeds the private market.

Despite controlling only 2/3 of total resources, the Italian national health service continues to portray itself as a self-sufficient institution and defines large part of private spending as inappropriate or unnecessary in a self-absolving way. In reality, families, when they perceive a need, turn to both public health care and the private and informal care market to understand which is the most reasonable one for obtaining a service. A significant part of the services purchased by citizens are linked to services that the national health service explicitly does not offer (dentistry), or offers according to insufficient standards (personal medical devices), or in insufficient quantities (rehabilitation).

The fragmentation of services and the lack of integration of the public and private markets, accompanied by the falsely universalistic rhetoric of the national health service, confuse Italian citizens as to which services are truly exigible, while forcing them to do cherry picking in order to recompose services with respect to needs. These phenomena increase inequity, favoring families with greater literacy and resources in the arbitration and integration of the two markets.

What to do? The SSN, in addition to acquiring a mature awareness of its real role in the scenario, should first of all question itself on how to increase the country's aggregate health expenditure to ensure greater equity by sustaining, in the short term, an increase in expenditure brokered by intermediaries to the detriment of out-of-pocket payments for large sections of the population. Secondly, becoming a credible health provider in the paid market, offering appropriate services at a high quality, with controlled prices: being the embodiment of good practices in the paid market. Third, integrating the services obtained from the various markets, by supporting families in the recomposing arbitration process (a positive note: personal health files now report also medical records from private care). Finally, verifying with greater rigor the absence of distortions in priority of access to the SSN, due to services purchased on the free market for health professionals. ■

Health research has a home at CERGAS

Over the last 40 years CERGAS has been one of the leading influences on Italian National Health System helping shape the way society thinks about health and health care. CERGAS contributes to relevant and timely research within the healthcare sector, while simultaneously bringing new and advanced levels of empirical and analytical knowledge to the field. Nowadays, while keeping its focus on management of healthcare organizations, it is a multidisciplinary research centre that investigates a vast array of issues and topics concerning healthcare management, health policy, health economics, social and not-for-profit organizations.

THE COURSE/1

Sviluppare e gestire in mercato privato in sanità provides strategies and tools by analyzing private consumption in healthcare, interdependencies with public consumption, and the potential of integrative healthcare.

THE COURSE/2

Modelli di gestione dei Servizi Sanitari Territoriali provides effective management skills for greater coordination between hospitals and the territory, health and social health services.

The geometry of digital

The power held by the private owners of digital platforms is in fact para-constitutional, so much so that they have moved from the classic vertical relationship between authority and freedom to a horizontal dimension in which the state's goal is to find the most appropriate levers and tools to limit their powers

by Oreste Pollicino @

What are the new challenges to modern constitutionalism with respect to the emergence and consolidation of large digital platforms? In order to reach a measure of understanding, we must start from the analysis of the process of "transfiguration" that have transformed these subjects in powers stricto sensu, and the reaction that this transfiguration had engendered in modern constitutionalism which, in order to maintain faith in its original mission of limiting power, must find new geometries of action. Specifically, there is a move from the vertical geometry of the classic relationship of authority versus freedom to a horizontal dimension, in which the objective is to find the most appropriate tools to limit and contain the private power held by large IT platforms, also by leveraging the concept of digital sovereignty.

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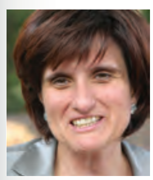
One should keep in mind that this is not the first time that the problem of the relationship between public law and private powers has arisen, nor that private subjects de facto regulate certain markets with such an influence on a particular industry as to hold political power lato sensu (think of sports federations).
The discontinuity and therefore the relevance of private power in the new digital context is however given by two aspects. The first is of a quantitative order: the pervasiveness of the digitalization process, the mechanisms of algorithmic automation, and the enormous amount of data available to profile users have given major digital corporations an unprecedented ability to exert global influence. The second novelty is qualitative, and impinges on the breadth, pluralism and freedom of public debate. In fact, we have never seen in the past what is happening in the digital context. That is to say, private subjects with such a dominance on a very particular market, that of ideas - to paraphrase Holmes' legendary metaphor about a free marketplace of ideas - that they are capable of influencing public debate in a most effective way. In fact, for large platforms, as Miguel Maduro recently argues, "fostering a large community - similar to a public sphere - is key to the business model".
The issue of re-proposing, in the context of the digital ecosystem, the conditions and presuppositions of a functioning public sphere, in the sense that Habermas defines it, deserves mention, because it is intertwined with the issue of the concentration of power held by private subjects (which often de facto exercise functions of a para-constitutional nature, as we said).
It seems quite optimistic, bordering on unrealistic, the hope expressed by Balkin, one of the leading scholars on the subject, who suggests an ideal model (melius: idealistic) of the digital public sphere, according to which social media, private subjects which mainly operate according to the market logic, should, however, move on three fronts on a voluntary basis, at least as regards the US case, to enhance public debate. First of all, they should facilitate public participation in politics, culture and art; secondly, organize public forums on the web that favor the exchange of ideas; thirdly, caring for the modalities of functioning and moderation of public conversation.
It is very difficult to envisage the scenario above described, also because we are witnessing a phenomenon that in many ways goes in the opposite direction, namely the crumbling of social formations in cyberspace, at least of traditional ones, with all the negative consequences that absence of political intermediation on the part of the intermediate bodies can have on the modalities of exercise of power (and its abuse) and on the weakening of the position of the individual, increasingly immersed in the Internet framework made of individualism, but also of loneliness, and in the end of further weakness with respect to power, whether public or private.
What is really important to underline is that the tools and categories of constitutional law should neither be subverted nor put aside. Instead, the question is finding the most balanced formula for their application to the digital ecosystem, in search of the most authentic and original spirit of constitutional law, namely the limitation of power, regardless of its geometry. ■

sovereignty

Fashion is political

The democratization of fashion started in the 1800s with the birth of the department store, which accustomed consumers to exercise their right to choose and educated them to become middle-class citizens. Department stores themselves have gone into decline since the 1950s but the process continues

di Elisabetta Merlo @



ELISABETTA MERLO
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The history of 19th century fashion and the history of 19th century retailing are inextricably linked. They are marked by epochal changes, respectively the birth of haute couture and the advent of the department store, which both took place in Paris at the time the restoration of the royal house moved the French capital once again to the center of the stage for political and cultural events, while urbanization transformed it into a market for luxury goods, especially textiles, clothing, and accessories. Charles Frederick Worth, the British father of haute couture, was a shop assistant in a Parisian department store (grand magasin) before opening his own atelier.
The first example of big business in retailing, department stores lowered unit prices and made profits by increasing the amount of transactions instead of making profits by imposing high prices on a limited amount of individual sales (as did traditional shops). The success of the new business formula, which soon developed in Europe and the US, reaching Japan in the early-20th century, relied on a huge increase in the variety and amount of merchandise offered to a plethora of customers. Therefore, department stores vertically integrated in clothing manufacturing and forced textile firms to increase their production. A wide array of innovations, such as captivating window displays, marked and fixed prices, sale promotions, and mail order catalogues, were introduced to attract as many customers as possible. For the first time in the history of retailing, a large variety of products was

displayed in departments arranged in a sole location where customers could also enjoy concert halls, fashion shows, bookstores, restaurants, and tea-rooms. Making mail order purchases entailed novel remote services such as home delivery, return of purchased goods, and refund to dissatisfied customers.
According to economic, business, and fashion historians, department stores were crucial to prompt the process of fashion democratization. They kept consumers updated to the latest novelties in fashion and, even more important, they sold fashion which was the affordable alternative to haute couture. However, a closer look at mail order catalogues, a previously disregarded historical source, provides new insights into the department store's democratizing power. Far from being just the consumption "paradise", as Emile Zola titled his famous novel set in a Parisian grand magasin, they turned fashion shopping into a political issue. Customers who entered the enticing and appealing 19th century cathedrals of consumption were free to choose among a wide variety of prices, models, fabrics, and fashion accessories, to personalize them, to buy everything was needed to create their favorite clothing by themselves, from threads to trimmings, or to buy ready-to-wear outfits. To some extent, therefore, department stores made fashion a form of governance that located sovereignty in the free will of every citizen. By training consumers to exercise the right of choice, they trained them to become citizens.
The Historical Archives of Bocconi University (ASBOC) collect some copies of the mail order catalogues issued by Grandi Magazzini alle Città d'Italia, the department store founded by the Bocconi brothers in Milan in 1877.
Along with the historical sources kept in the Archivio Brustio - La Rinascente and in Camera Nazionale della Moda Italiana historical archive, they provide scholars with a unique, invaluable source to study the history of Italian fashion as a multifaceted cultural, social, economic, and political phenomenon.
The golden age of the department store ended with World War One in Europe. The formula enjoyed renewed success in the 1950s, before intense competition from specialty retailers and mass discounters condemned them to decline. The process of fashion democratization they prompted is still ongoing, proving that fashion is not, and has never been, apolitical. ■

THE PAPER

Fashion - Production, Commercialisation, and Consumption, by Elisabetta Merlo

Since year 2000, the Security Council has been tackling the worst forms of international crime, but there are open issues such as the lack of organic guidelines, the paucity of staff and resources, and the scant use of intelligence operations in coordination with member states

by Leonardo Borlini @

United Nations V

To what extent and in what ways does the UN Security Council deal with organized crime? In an article to be published in the Journal of International Criminal Justice, I have investigated one of the least examined and most recent developments that have characterized the activity of the UN executive body since the end of the Cold War: the commitment to fight various forms of organized crime that determine, contribute to cause or aggravate, 'a threat to international peace and security' asper the fundamental Article 39 of the UN Charter.
From a quantitative point of view, the empirical examination of the resolutions adopted by the Security Council in the decades between 2000 and 2020 shows that the UN executive body has increasingly dealt with crimes such as trafficking of human beings, drug traffic, illegal arms trade, illegal trade in natural resources, money laundering, wildlife crimes, piracy and migrant smuggling. Moreover, the empirical findings of my study seem to suggest an underestimation of the

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phenomenon by law and international relations scholarws. In fact, it appears that over 40% (489 out of 1219) of the resolutions adopted by the Security Council in the first twenty years of the 21st century concern one of the aforementioned forms of crime, with peaks of 67% and 61% respectively in 2014 and 2017 and with a strong concentration on Sub-Saharan Africa as regards the geographical area most affected by UN rulings.
As for the main modes of intervention, the study shows that the Security Council has moved along lines that were not imaginable by the drafters of the San Francisco Charter in 1945, by adopting an approach and techniques that resemble those of criminal justice applied to individuals. States, in particular with regard to investigations carried out through its subsidiary bodies into the criminal activities existing in countries in question

S organized crime

and the imposition of sanctions that the Council may decide on the basis of Article 41 of the UN Charter. With respect to this latter tool, I argue that, in addition to 'punitive' purposes, the use of sanctions against organized crime is characterized by 'regulatory' elements. That is, it is prospective, aimed at the elimination or containment in the future of the potential causes of new crises, also through the involvement of private entities – especially companies and business associations operating in certain economic sectors – to foster shared regulation with the public sector.
Some issues remain open: with regard to investigations (or fact-finding missions) into organized crime activities, the lack of comprehensive guidelines, lack of staff and dedicated resources, and the infrequent use by the Security Council of intelligence operations in coordination with (or in substitution of) the authorities of the states concerned. With regard to the use of the sanctions for the purpose of combating organized crime, the main problem is the lack of adequate mechanisms to protect the human rights of individuals subjected to sanctioning regimes decided by the Security Council due to involvement in criminal activities.
In conclusion, the development of the Council's role to combat organized crime is remarkable and confirms its growing attention to the threats to international security posed by non-state actors. Nonetheless, also this new kind of interventions are necessarily subject to the agreement of the five permanent members (China, France, United Kingdom, Russia and United States), which partly explains their concentration in areas which, at least for the moment, are not affected by disputes between great powers over spheres of influence. ■

THE PAPER

The UN Security Council Faces Organized Crime: Fact-finding, Regulation and Enforcement Strategies, by Leonardo Borlini

LEGGI L'ARTICOLO IN ITALIANO

Diversity and inclusion make the university stronger

Catherine De Vries talks about her work as Bocconi Dean for Diversity and Inclusion: from the mapping and reorganization of existing initiatives to the drafting of the first Inclusive Gender Equality Plan and the launching of the Career Alias project. She reminds readers that not only the relationship between diversity and innovation is scientifically proven, but that inclusion opens our minds and changes our way of looking at the world

by Jennifer Clark @

In her two years so far as Bocconi Dean for Diversity and Inclusion, Catherine De Vries has worked to consolidate the university's existing initiatives into a more encompassing overall approach. The goal was to give the existing offer a better overall structure, as well as create new initiatives for areas that were not receiving attention. The team set targets and created a road map to meet them, and now can monitor its progress through a specially created dashboard. "We are not yet there, but we are making good progress," she says in this interview.

A native of the Netherlands, De Vries worked for almost ten years in the UK (Oxford University and University of Essex) until 2018, when she became Westerdijk Chair & Professor of Political Behaviour in Europe at Vrije Universiteit Amsterdam. In January 2020 she joined Bocconi's Department of Social and Political Sciences, teaching European Politics and Public Opinion and Media and continuing her research work.

➜ What was the situation at Bocconi when you started as Diversity and Inclusion Dean in 2020?

When I started the deanship, the university already had diversity and inclusion-related policies and initiatives, but it was not really a coherent program. A lot of diversity issues overlap, and therefore often require an encompassing approach. It was really important to combine the initiatives.

The first three things we did in the two years of the deanship so far -- and we are not yet there, but we are

CATHERINE DE VRIES
Full Professor of Political science, Dean for Diversity and inclusion, Bocconi University

ON THE WEB

Bocconi is committed to building a university that values diversity, equity and inclusion. Vision 2030, Bocconi's strategic planning document for the next decade, guarantees this commitment and identifies six strategic objectives that should guide the University. Here the section of the website dedicated to these issues.

THE ALIAS CAREER

The Alias Identity Regulation was proposed by the Committee for Inclusion, Disability and Wellbeing exactly for this purpose. Bocconi University cares for the psychological and physical well-being of members of the university community by providing support throughout the administrative procedure of their gender transition.

THE PLAN

The Inclusive Gender Equality Plan underlines the strategic importance of promoting diversity and inclusion within the entire Bocconi community, providing a snapshot of the current situation, while at the same time laying the foundation for where efforts should be directed in the near future. All based on a basic principle: diversity is a fact, while inclusion is a practice. It depends on the everyday choices and actions of each one of us.

making good progress -- are to map the situation at the university both quantitively with numbers and qualitatively in terms of perceptions. That gave us a road map of what needed to be done. It was very clear there were a couple of areas that required attention, like a program for students who are gender-transitioning, and a program to have better maternity and paternity leave structures. The second thing was that we needed a better organizational structure, so we launched a Bocconi Inclusion Service.
The third thing was to communicate it to the community. We now have a designated area on the website which outlines all the diversity and inclusion things that we do.

➜ In terms of the international context, where does Bocconi fit? Are a lot of universities doing this?

In higher education, diversity and inclusion is very developed in the U.S. context, and is less advanced in Europe. Bocconi was one of the first universities that created a D&I deanship like in the United States, making diversity, equity, and inclusion into an executive priority. Bocconi has really moved in this space, to make sure we give the best experience to our staff, students, and faculty, but also to teach a new generation of economic political, and social leaders that are sensitive to these issues.

➜ You were named Chair of the Diversity Committee of the European Political Science Association (EPSA) in 2019. Has that experience fed into what you are doing now?

The goal is to make sure our activities and conferences are easily accessible, and that the website is easily accessible. These are also some of the things I am dealing with as a dean. It's about digital accessibility, physical accessibility of space, and providing spaces for people to reach out and share their experiences. It has been a stepping stone for what I am doing now.

THE INITIATIVE

CarDev provides career development assistance for women faculty, in the form of a teaching discount equal to 50% of the teaching load for the academic year and the allocation of €5,000 for additional individual research funds.

→ Regarding your academic and career path so far, has diversity played a role in your work?

In my own research into far-right politics and populism, I have tried to understand what moves people to the far right, and what makes people hold more egalitarian gender attitudes.
My personal experience of diversity has also played a role. I became a professor at Oxford at a young age, and I was a foreigner and a woman. I have experienced what it is like to work in a traditionally less diverse academy and how that affects you. That experience of marginalization in an organization was an additional spur to become active in this space. This is not a criticism of specific universities. It was that academia used to be quite male. Sometimes I spent a lot of time doing things to show I belonged or to feel fully respected that I could have spent working on my papers or teaching.

→ Can you give us an example of the things you have been doing as Dean?

I have two examples. The first is to set targets in an Inclusive Gender Equality Plan in terms of increasing the number of women in faculty, or increasing the number of people from international backgrounds, or being more multicultural. After setting the targets, we created a diversity and inclusion dashboard so that we can map and keep track of our progress. That was really important.
At Bocconi, we didn't have a program for students who were in a gender transition. I am proud of our new "Alias" program that makes it easy for a person to use something other than their legal name. You also get a mentor that helps you with things. It is for both students and factuality as well as for staff members.

→ How can academic organizations recruit a diverse faculty or diverse student body? Is there a secret to it?

There are three things. The first is being aware of implicit bias, or the extent to which you associate characteristics based on attributes that you see. It is crucial when you hire faculty that you make sure that you are aware of these implicit biases. It is also important to signal to prospective faculty that you are a diverse employer.
The second thing is to lead by example. That means having a diversity and inclusion team, and also having women at the top of the university. What so often happens is that minorities internalize stereotypes themselves. It is important to have examples and role models.
Lastly, we try to enlarge the pool of recruits beyond the usual network to make sure you hire openly and from everywhere to ensure that more marginalized groups have a fair chance to get hired.

→ How does diversity and inclusion make an organization better?

The link between innovation and diversity is well known and has been demonstrated in research.
In higher education, there is an implicit pedagogical aspect. We teach people to be well-thinking and well-rounded individuals that can operate in different settings that can consider different viewpoints, and argue with them in a respectful, logical, and scientific manner. So having people from across the world, having people from different religious backgrounds opens up your way of thinking and looking at the world. ■

STUDENT SUPPORT

Thanks to the contributions of Donors, over the years Bocconi University has made important investments in support of the brightest and most motivated students, regardless of their social and economic background. In the academic year 2021/2022, the University will invest €38 million euros (a 48% increase in 5 years) and so far 1 out of 4 students benefits from financial aid in one of the four support areas: Need, Merit, Diversity&Inclusion and Program Specific.

THE LIBRARY

Bocconi University offers the possibility to activate an "Alias career", enabling transgender people to use their preferred name within the University. To support this procedure, Bocconi Library has selected a range of relevant resources and tools, accessible through the Library or freely available online, on transgender issues.

THE LAB

The AXA Research Lab on Gender Equality promotes research in social sciences related to gender. Research includes all areas of gender economics, gender policies, and gender diversity management. The Lab aims to promote gender equality in the economic and social spheres through rigorous scientific methodologies.

Knowledge

Inquiring minds need to be nurtured. Bocconi Knowledge is the University's science communication project, including a website and a newsletter, intended as a bridge between academia, the business world, and curious people. Here you can enjoy stories, videos, infographics, and podcasts about cutting-edge research conducted in Bocconi on business, economics, social sciences, law, and quantitative sciences.

by Fabio Todesco
and Jenny Mao, Giulia Sargiacomo, Pietro Vacca @

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Florian Nagler, Finance

Short-term debt comes with a penalty in the cost of equity

FLORIAN NAGLER
Assistant Professor of Finance, Bocconi University

A new study finds that investors want to be compensated, in the form of higher returns, for holding the stock of firms that have a relatively higher proportion of short-term debt, rather than long term debt

In their new paper *Debt Refinancing and Equity Returns*, published online in the *Journal of Finance*, **Florian Nagler**, Assistant Professor of Finance at Bocconi, **Niels Friewald** (Norwegian School of Economics) and **Christian Wagner** (WU Vienna University) investigate one of the fundamental notions of corporate finance, that is, how debt affects stock returns.

They find that the traditional view that investors demand a premium for holding the stock of more highly levered firms could be expanded by considering the maturity structure of debt and not only the overall level of indebtedness.

Nagler and colleagues first classify debt in short-term (maturity under three years) and long-term (all other maturities) and then show that the ratio of short-term leverage to total leverage, called refinancing intensity, predicts returns.

The authors find that the yearly returns of high refinancing intensity firms are on average 2% higher than those of the low intensity ones. By contrast, companies that are merely highly leveraged do not exhibit a significant premium, reinforcing the hypothesis that it is short-term debt, rather than debt itself, that investors want to be compensated for.

The analysis is then repeated, sorting the firms based on size, short-term and long-term leverage, this time looking at the maturity and level of debt jointly. The results are similar, with the long-term leverage premium insignificant again.

The last part of the paper explores in detail the interaction between short-term leverage and systemic risk through a model. It results that firms with high systemic cashflow risk benefit from raising relatively more short-term debt, because it reduces the liquidity costs in the secondary market that come with long-term debt. While short-term leverage reduces liquidity costs, it also entails refinancing risk, not knowing at which interest rate the next batch of debt will be raised. Thus, investors demand a return premium to buy shares of short-term debt financed companies.

VIDEO

Stephen Penman, Accounting

Streamlining fundamental models

STEPHEN PENMAN
Distinguished Professor, Department of Accounting, Bocconi University

In his most recent publication, **Stephen Penman**, Distinguished Professor at Bocconi Department of Accounting, in the *Journal of Accounting and Economics*, aims to recast the well-known consumption-based price model but from an accounting outcome perspective.

The consumption-based price model crosses several fields and has its roots in the capital asset pricing model (CAPM). CAPM describes the relationship between the risk embedded in the market and the expected return of assets. The result is represented by a factor – also known as beta – that tells how much risk an investor is adding to his or her portfolio by

Massimo Magni, Management and Technology

Using mobile devices for work makes us a nuisance to the family

MASSIMO MAGNI
Associate Professor of Organization, Bocconi University

Mobile technologies allow employees to maintain connection with their workplace and deal with unaddressed work demands while at home. However, the boosted productivity comes at the expense of personal well-being and family relationships, according to a paper published in Information Systems Research by **Massimo Magni** (Department of Management and Technology), **Manju K. Ahuja** (University of Louisville) and **Chiara Trombini** (INSEAD Singapore). In particular, a heavy usage of mobile devices for work purposes at home can lead to increase in self-perceived productivity, but also in stress-related level of somatic symptoms and need for recovery. Individuals have to make tradeoffs in allocating time and energy to work and to family. "And family-work conflicts are further exacerbated when their organizational environment is competitive. Individuals in fact tend to show off their willingness for work when they perceive an organizational climate that fosters competition among employees," Prof. Magni explains. But there is a price to pay: "While these employees report significantly improved productivity, they also tend to suffer from stress-related physiological symptoms like headaches and have a higher need for recuperation. Unfortunately, they were also obnoxious at home." The findings come from online surveys in the US asking participants about the extent of conflict between family and work commitments, as well as how competitive their workplace was, and, separately, their partners about participants' mobile phone use for work-related activities outside working hours. "Well-being and responsible use of technology can be traced back to individuals' behaviors and organizational culture, and the right to disconnect should be respected," comments prof Magni. "Employees should keep in mind that they can decide whether to reply to the emails and answer the phone calls. And organizations may help employees learn how to prioritize through planning in advance, which I investigated in another paper," Prof. Magni concludes.

VIDEO

investing in that specific stock. The higher the added risk, the higher the return an investor expects (requires) from an asset. When the beta employed represents not the systemic risk, but the added uncertainty in consumption growth that would come to an investor from holding the asset, we have the consumption-based model. The higher the added uncertainty in consumption growth, the higher the return an investor expects (requires) from an asset.
Even if many scholars have attempted to provide new empirical evidence to the model, Professor Penman, with co-author **Julie Zhu** (Fudan University), brings to the table of asset pricing literature a model that uses accounting principles as bridge between consumption and key accounting variables.
The two accounting relations adopted by Penman are the "clean-surplus" and the "realization principle for booking earnings". While the first has the objective of explaining the existing relationship between asset book value, earnings, and dividends, the second explicates that earnings are booked only when the risk is resolved. The key novelties presented by the model are the presence of a single factor and its interpretability. The model is defined by its authors as "parsimonious" because it captures most of the returns by adopting one single factor. This represents a point of distance from those models that use a "zoo of factors". Moreover, the factor is transparent because its interpretation is straight forward. This is easily traceable back to the philosophy of Professor Penman of working with concrete tools.

THE PAPER

An accounting-based asset pricing model and a fundamental factor, by Stephen Penman and Julie Zhu

Jérome Adda, Economics

New skills are the high road to higher salaries

JÉROME ADDA
Full Professor
of Economics,
Bocconi University

A new study by **Jérome Adda** (Department of Economics) finds that the acquisition of skills is the main contributor to higher salaries for workers, with the magnitude of the effect differing according to the type of skill and the career stage of the worker. Although workers can acquire skills on the job, those who undergo training before entering the job market generally obtain greater wages and are in unemployment less often. Professor Adda and **Christian Dustmann** (University College London), in a paper in *the Journal of Political Economy*, estimate a mathematical model to understand the determinants of wage growth. Using data on labor market outcomes of German men over several decades, they find that workers' ability levels, their accumulation of human capital, and changing of jobs across different sectors and firms all have significant positive contributions to earnings. Research on labor markets distinguishes the tasks workers perform into two categories: routine-manual (RM) tasks and cognitive-abstract (CA) tasks (which require more technical and creative capabilities). The authors' results indicate that the accumulation of RM and CA skills over the course of an individual's career is the most important driver of wage growth. RM skills contribute more significantly to increases in worker productivity and earnings in the first years of careers, while CA skills take a longer time to be accumulated but have a longer-lasting impact. Such skills can also be accumulated through a training period that takes place before labor market entry, and the authors estimate the impact of undertaking such a program. When compared to untrained workers, trained individuals are able to accumulate more CA experience, which besides the direct wage benefits, also improves other aspects of job matching: trained workers become unemployed less often and receive competing job offers at a higher rate. This increased permanence in the labor market provides the opportunity to accumulate more experience, which in turn yields greater returns. The authors also find that mobility of workers across the labor market contributes to higher salaries. Switching between different jobs generates a significant increase in earnings, but this is concentrated in the early career years with the gains quickly declining. However, there are also lock-in effects: workers are initially allocated to a sector for which they are not the most suited, but the accumulation of experience specific to that sector disincentivizes them from moving to jobs in other sectors.

Luca Bellodi, Social and Political Sciences

How to measure the reputation of bureaucracies

LUCA BELLODI
Research Fellow,
Bocconi University

kThe behavior of administrative agencies largely depends on the bureaucratic reputation that units and departments enjoy with different audiences. However, the current scholarship has not yet produced a coherent measure of bureaucratic reputation that is applicable to multiple agencies across different countries and over time. In his latest paper (in *American Journal of Political Science*), DONDENA Researcher **Luca Bellodi** amended to this gap by devising a new strategy to compute scores of bureaucratic credibility using state-of-the-art techniques in the field of Natural Language Processing. The paper employs a technique called "word embedding", which computes the probability that two or more groups of words occur in the same linguistical context. In this case, the authors are interested in computing the probability that the name of any agency is brought up close to words symbolizing high or low reputation and efficiency. This exercise was carried on using the names of 465 bureaucratic agencies in the US and in the UK mentioned, over 40 years, in the parliamentary speeches made by members of Congress and of the British Parliament. The results of this strategy then passed additional validation tests, proving to be robust against other text corpora and alternative measures. In particular, the author was able to identify boosts and flections in terms of credibility that happen in the presence of a crisis as it occurred to the British Home Office in the wake of the Windrush Scandal. The paper also finds that the US Environmental Protection Agency has suffered a steady decline in the last 30 years whereas the British Department of Health improved its status in the same period. The findings suggest that members of the party in government tend to praise bureaucratic agencies more than the opposition. At the same time, this difference decreases when the mentioned agencies are more independent.