viaSarfatti25

BOCCONI UNIVERSITY, KNOWLEDGE THAT MATTERS

Issue 3/2022
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It is the theory that explains one of the forms of innovation besides those defined as radical or incremental. Thanks to the digital revolution where it has developed, disruption has become a common way of describing changes in the marketplace, in ways of thinking and modes of life. It can be risky and error-prone, but it pays to...

BE DISRUPTIVE


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VIDEO

Executive Chat with Lisa Gevelber

"The pandemic was a real accelerator for digital transformation in education, in so many ways," highlights the Chief Marketing Officer Americas Region at Google and Vice President of Grow with Google

Executive Chat with John Byrne

Business schools are undergoing, but also leading, change driven by trends such as digital transformation and sustainability, highlights the CEO of Poets&Quants

Next Stop Milano

While the students were busy with their finals, Bocconi was crowded with many researchers from all over the world, who came to attend the four congresses that were organized and hosted on campus in June (Customer Journeys in a Digital World, ERES, BAIC, ARCS). And many more will arrive between July and August, for the scheduled conferences of LEAP, SIMA, Geoinno, and EEA-ESEM.

It is a doubly positive sign: on the one hand there is the resumption of international mobility after pandemic restrictions, on the other the confirmation of Bocconi's attractiveness and reputation among our partners and academic stakeholders. Likewise, the success of the recently concluded Design Week is a signal that Milan is back on track and running as fast as it was during the years following Expo 2015. The race is on in order to be ready for the Milano Cortina 2026 Olympic Games, for which Bocconi is also contributing by doing impact studies.

It is without doubt that Bocconi, and the Milanese university and research system in general, benefits from Milan's rise in international attractiveness. In the same way, the growth of the city is aided by its university ecosystem and its centers of excellence in the life sciences, digital technology and the social sciences. Milan with its 220,000 university students and droves of researchers populating its universities and new research hubs like the Human Technopole, is one of Europe's capitals of talent, a city that more than others has put human capital at the center of its strategy. Bocconi has worked hard to build an academic environment of value, providing services and hospitality for international researchers and their families. Now a third of its faculty comes from abroad, joining an international student body, with 25% of students coming from more than 90 countries around the world.

In recent years, a lot has been done jointly to attract talent. Now the time has come to devote efforts to make sure these young talents stay here and give back to Milan (and Italy) part of the investment that was made in them. We have to close this virtuous circle, and in order to do so we must, for instance, be equally attractive for multinational corporations, so that they choose Milan to set up their EU headquarters.

Gianmario Verona, Rector

Call me A

Two years after his untimely death, in occasion of the study days in his memory and the launch of the Alberto Alesina Young Economists Award, his students and co-authors remember the mentor, lifelong friend, and passionate and generous scholar. The tribute event saw the participation of Italian Prime Minister Mario Draghi, Lawrence H. Summers, former US Treasury Secretary and President Emeritus Harvard University, Silvana Tenreyro, External Member of the Bank of England's Monetary Policy Committee and professor at LSE, Lionel Barber, former Editor-in-Chief of the Financial Times, *President Mario Monti, Rector Gianmario Verona, Francesco Giavazzi and Alberto's wife Susan Alesina.*

LEGGI L'ARTICOLO IN ITALIANO

Alberto

The memory of his students and co-authors
by Andrea Celauro, Andrea Ichino, Barbara Orlando, Fabio Todesco

The video and photos of the event
by Paolo Tonato

The Alberto Alesina Young Economists Award

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Looking to space for the future of Earth

From a place dedicated to the development of technological innovation, space is increasingly becoming a sector that is a strong driving force for tomorrow's economy. This is the story of astrophysicist Simonetta Di Pippo, who, after eight years at the head of the United Nations Office for Outer Space Affairs (UNOOSA), is now the new director of the Space Economy Evolution Lab at SDA Bocconi

by Emanuele Elli @

"When we get cash at the ATM, consult a navigator, turn on the TV or watch the weather forecast, we use satellites and therefore spatial technology. Space is already today in everything we do on earth." Simonetta Di Pippo responds with the evidence of everyday life to those who still wonder about the reasons that push research, investments and industrial interests towards space, and who worry about the possible repercussions. Di Pippo is an astrophysicist by training, responsible for space missions and programs for and with the Italian, European and American agencies, long director of the UN space office and today is called to direct the SEE Lab (Space Economy Evolution Lab) of SDA Bocconi. She has lived on the front line like few others the change of approach towards space, from an area of interest for technological innovation and scientific discovery to a real driving economic sector with an expanding and increasingly branched market. Space, in fact, has become so large that it is difficult to draw its boundaries, like drawing borders between the stars.

➜ *What exactly is the definition of Space Economics?*

We could define it this way: the space economy is the set of value generated on the basis of spatial data and infrastructures in any economic, social, political sector. Within this context there is a recognized formal division between "space for space", which identifies the activities that take place in space to support space activities and "space for earth", or activities that are done in space to benefit life and the economy on earth. To the first category belong, for example, the development of technologies for the exploitation of lunar resources or experiments for possible space mining activities on asteroids in search of rare earth substances or to build refueling stations for spacecraft. The second aspect concerns the use of spatial data for terrestrial activities, a very wide field ranging from agriculture to the management of solar energy plants, emergency response in natural disasters, and remote education.

➜ *The perimeter of this sector today also includes commercial human flights. What development do you see for this market?*

The history of space follows the same trend as the history of aviation and many other innovations. Even telecommunications were initially supported only by public investment and then, when the technology became mature, it moved on to commercial exploitation. The same happened with meteorology, with earth observation, with positioning systems. Today flight in low orbit has a rather consolidated technology and therefore it is natural that flights are developed for tourist purposes; I would not be surprised if in a few years they became

SIMONETTA DI PIPPO Graduated in Astrophysics and Space Physics at Sapienza University of Rome, Di Pippo arrived at Bocconi as new director of the SEE Lab (Space Economy Evolution Laboratory) and professor of Practice of Space Economy at SDA Bocconi after a career in which scientific research soon joined managerial roles and which led her to deal with space missions and international programs at all levels. Among other assignments, she has been responsible for the Observation of the Universe sector for the Italian Space Agency, Director of Human Flight at ESA European Space Agency, and for the last eight years head of the United Nations Office for Outer Space Affairs (Unoosa).

Space, the final frontier

The SDA Bocconi SEE Lab, Space Economy Evolution Lab, was born to provide space-oriented businesses, non-space industries, financial operators and public actors with the in-depth understanding and strategic insights necessary to gauge the opportunities presented by the space economy. Carrying forward the legacy of Giovanni Bignami and Andrea Sommariva, the Laboratory can now leverage on a robust interdisciplinary research approach and a strong network of partners to support space economy players to face the industry's future and global challenges. The 2022 SEE Lab Annual Event, on June 27th, aims to highlight the relevance of multidisciplinary research for the future of space by supporting the business and policy strategies of space industries, non-space industries and public institutions. The event is aimed at commemorating the great contribution of Andrea Sommariva's research activities on space economy and to launch the Laboratory's future program, welcoming its new Director, Simonetta Di Pippo.

commonplace. In reality, the low orbit is also interesting for other purposes, because it allows us to develop products that cannot be made on earth: microgravity would allow us, for example, to produce purer medicines or carry out experiments under particular conditions. This is also an interesting development vector.

➜ What is Italy's role in all this? Are we living up to our important past contributions?

Italy has always played a fundamental role in space exploration, since 1964. The day of the launch of that first satellite, December 16, was recently declared by the government as National Space Day. The national ecosystem, therefore, is very well developed, but now that this economy is expanding it is time to focus on some key axes in a strategic way to position Italy even better. It is a moment of important choices because, on the one hand, there is the PNRR that dedicates an important part of resources to space activities. On the other, a general repositioning of the countries in post-Brexit Europe is underway and we will have to know how to exploit the privileged relationships we have with the USA but also open up to new markets. Among the objectives that I indicated in the strategic plan of the SEE Lab there is, for example, that of building a bridge with the Middle East, the United Arab Emirates in the first place, because today there are centers of excellence here in the space sector and I hope that there will be the possibility of replicating our best practices in collaboration with universities and local authorities.

➜ After a career in space agencies and international organizations, with what expectations do you arrive at Bocconi?

With great enthusiasm. First of all, because Bocconi has not only decided to invest in the space economy as the backbone of the economy of the future, but has also done so with a multidisciplinary approach that I fully espouse. One of the things I learned right away when I came into the world of space research as a recent graduate is that you can't just look at one facet of this diamond that is the universe. Space is not just science, just engineering or just economics, you need all these skills together to secure a position of excellence in the industry. The work of Andrea Sommariva, who founded the SEE Lab, was exceptional because with his credibility as an economist he managed to open a dialogue with an ecosystem that tends to be exclusive - that of the ones who manage and organize space missions and programs. I want to continue along this line by adding my experience in the field, the skills in space policy and space diplomacy, which today are fundamental because everything is carried out in international collaboration, and the global geopolitical vision that I have acquired especially in recent years at the UN.

➜ Has studying the universe through the eyes of a scientist and an economist reduced or added fascination with the stars and the mystery they hide?

The inspirational side that drives scientific research and technological innovation remains intact even today. Indeed, the effects of these studies on the life of the earth have gone beyond the best expectations. And today the prospects are even more exciting because, if it is true that there are few countries that can boast assets in orbit, understood as constellations of their own satellites, it is equally true that the data they collect are often free for use by everyone. That means anyone with the skills to interpret and use them can participate in new discoveries and build new businesses. This is how the innovative method of education, multidisciplinary, indeed multidimensional, which we plan to apply at Bocconi, will contribute to making it a center of world excellence. ■

PODCAST
The space economy today stands at a value of about $400 billion, destined to become a 'trillion economy' within a few years. In this Story Scanner episode, Simonetta Di Pippo, director of the Space Economy Evolution Lab at SDA Bocconi, talks about the opportunities and challenges, and Giovanni Sylos Labini, CEO Planetek Italia, gives insight from a company working in the field.

PODCAST

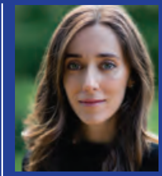
Origins of the CE mark

Common standards were essential to creating Europe's Single Market in the 1980s and 1990s, and the development of a system for assessing and certifying conformity to those standards became point of convergence between firms and regulators.

by Grace Ballor @

By indicating "conformité européenne" to regional standards for health and safety, the ubiquitous emblem of the CE mark effectively determines which goods in key product categories can be legally sold within the European Economic Area, the trading bloc that includes both the European Union (EU) and the European Free Trade Association (EFTA). As such, it is at the center of relationships between business and governance in Europe and a powerful symbol of Europe's place in the global economy. But how, when, and why was it developed? Was it intended to regulate or support regional trade? How did companies based inside and outside of Europe's prized consumer market respond? And what do the origins of the mark tell us about the political economy of the Single European Market in the past and in the present?

In a recent article published in the Business History Review, I drew on materials from the Historical Archives of the European Union to uncover the origins of the CE marking system of assessing and certifying conformity to European standards that includes affixing the CE mark. Documents from the European Commission and European Parliament reveal that it was during efforts to relaunch regional market integration in the 1980s through a "new approach" to standardization that the CE marking process was first developed. The Commission saw standards as a tool to liberalize markets and shape the business environment of the region. As it began to develop directives for product standards, however, the Commission quickly realized that its standardization program would need urgent reform if the European Community (EC) was to complete a Single Market by its 1992 deadline. It proposed a streamlined, modular "global approach" and, through the European Parliament's Committee on Economic and Monetary Affairs and Industrial Policy, sought the input of the business groups it hoped would embrace the CE marking process.



GRACE BALLOR
Assistant Professor of Economic history, Bocconi University

In 1990, Business associations with significant interests in European markets like UNICE and the EC Committee of the American Chamber of Commerce were asked to comment on the modules, assessment scheme, and CE mark criteria of the Commission's Global Approach. Their responses reveal broad business preferences not for less regulation and oversight, but rather for even greater clarity on the CE marking process, for equitable access to product testing and certification for companies based outside the EC, and for stronger enforcement of CE mark violators. Importantly, though, small firms and state-owned enterprises feared the costs of conformity assessment and the loss of preferential state regulation. Archival documents also show that these exchanges between business associations and European institutions were not a case of "regulatory capture;" the Council initially ignored the recommendations of the groups consulted. When it did make a decision on CE marking on the eve of the Maastricht Treaty's signing in 1991, the European Council took a rather protectionist approach by restricting assessment and certification access in third countries, thereby favoring European firms over those importing goods to the EC from places like Japan and the United States.

The origins of the CE mark help us understand the ways policymakers and companies alike were thinking about the Single European Market and its place in the global economy during the crucial years of the 1992 Program. Policymakers wanted to create a liberal internal market with some external protections, and business groups supported conformity assessment and certification as a means of leveling the playing field and opening access to new markets in the region. That the EFTA readily accepted the EU's system of standardization and use of the CE mark positions this history to shed new light on the broader dynamics of European political economy. ■

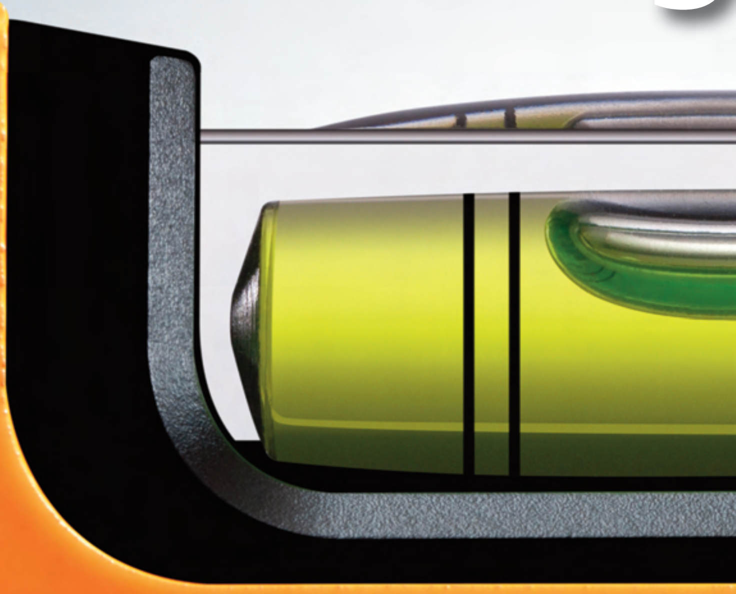
THE PAPER

CE Marking, Business, and European Market Integration, by Grace Ballor

How much are we willing to pay for the right working conditions? A study shows that when faced with health or mobbing risks, workers are likely to look at financial incentives, while they are less reactive to financial disincentives when they are in a very satisfactory working environment

In search of the rig

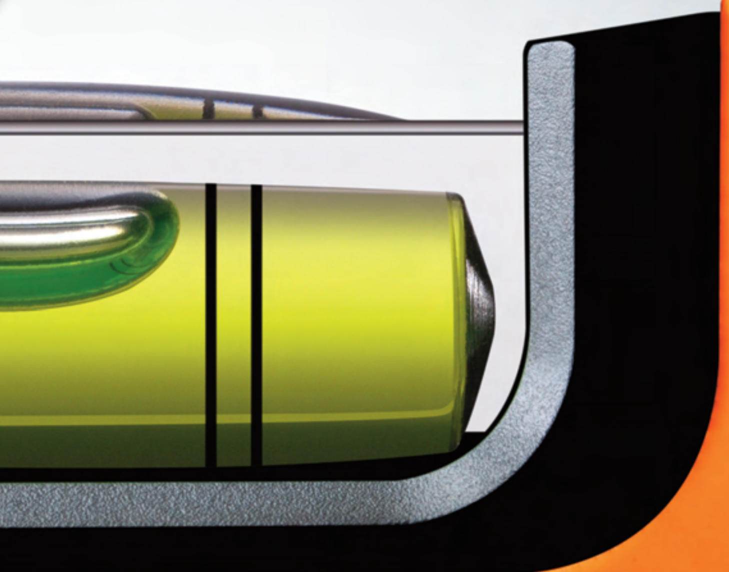
by Massimo Anelli @



New online platform technologies are redefining what employment relationships look like. Many firms do not offer permanent jobs to workers but employ workers at a "piece-rate" or hourly basis, often requiring workers to work on their own accounts as contractors or Gig workers (Agrawal et al., 2013). While wages in these positions may be comparable (Cook et al. 2018, Hall & Krueger 2016), there are stark differences in workers' rights, safety protection, and access to a variety of workplace benefits. Efforts to enforce minimum standards for such contract dimensions have received relatively little attention. Many anecdotes document the harrowing working conditions in many low-paid jobs. Large corporations are no exception, Amazon warehouse workers reportedly are discouraged from taking bathroom breaks and use bottles to go to the toilet, in addition, these workers are experiencing extremely high injury rates, reportedly because of the rushed working conditions. Other low-paid workers reportedly face problems with schedule uncertainty. Some workers, including delivery drivers and many other gig workers, do not know when their workday will end when they show up to work. Employers require that workers finish all tasks before they are allowed to leave and leaving work earlier may put the worker at risk of losing their job and income. Such schedule uncertainty is particularly challenging for people who work multiple jobs or have childcare or other family commitments. Poor working conditions disproportionally affect low-paid workers, often in less permanent jobs. Women, migrants and minority workers are heavily overrepresented in these types of contracts. Some worry that these poor working conditions are getting amplified by modern work relationships and that the erosion of traditional employment contracts worsens working conditions. As more and more jobs are short-lived, firms have fewer incentives to invest in the long-term health and wellbeing of their workers, and workers in such contracts typically lack access to channels that allow them to report harassment or other grievances. On the other hand, gig workers may enjoy greater autonomy over their work

MASSIMO ANELLI
Assistant Professor of Economics, Bocconi University

ht balance



but do not have access to most employer-provided benefits. Many commentators have criticized this shift, while others have celebrated it. At the heart of this debate is the question: How should we value non-wage aspects of work? Can we price the ethical standards of jobs? With the advent of new technologies and the increased flexibility of work, worse working conditions are often not priced into the wage. Although the hourly wage of these new jobs might be comparable to that of more traditional jobs, the total value of the former jobs might be lower when considering non-wage benefits.

Our work titled "Willingness to Pay for Workplace Safety" introduces a novel method for pricing working conditions, which allows researchers and policy makers to calculate the price workers assign to working conditions by measuring how much money they are willing to leave on the table to avoid being exposed to poor working conditions. This approach is called a revealed preferences approach and measures workers' valuation of alternative working conditions by observing whether workers are willing to forgo income when working conditions worsen. The basic intuition followed by our method is the idea that workers are less responsive to financial disincentives when their work provides a great workplace environment (e.g., workers enjoy the work and colleagues). Conversely, when work is characterized by harsh working conditions, e.g., due to health risk or mobbing, workers are more likely to respond to financial incentives. In this latter case, income eligibility thresholds for welfare benefits and other budget discontinuities have an amplified impact on labor supply. This new estimation approach allows for the implementation of quasi-experimental identification strategies (potentially as good as randomized trials) to estimate the value of poor working conditions for a wide variety of work arrangements. ■

THE PAPER

Willingness to Pay for Workplace Safety,
by Massimo Anelli and Felix Koenig

Guido Tabellini, Intesa Sanpaolo Chair in Political Economics at Bocconi, argues in this interview that there is a risk of recession in both the US and the EU, and that monetary policy will have to be restrictive in America and less expansionary in Europe to curtail rising inflation. As for the war, it could accelerate European integration

LEGGI L'ARTICOLO IN ITALIANO

The two faces of uncertainty

by Federico Fubini @

Guido Tabellini is convinced that the current phase, characterized by a dramatic war in Europe that is occurring while recovery from the impact of the pandemic was still incomplete, requires a double reading. Currently holder of the Intesa Sanpaolo Chair in Political Economics and Bocconi Rector between 2008 and 2012, Prof Tabellini thinks that there is a high immediate risk of recession in advanced economies. At the same time, he sees the political conditions, at least in public opinion, for further steps in European integration.

➜ *Professor, how will advanced countries respond to the inflationary wave of the last year?*

Certainly, the risk of recession is very high both in the United States and in the European Union. In the United States, if there is one, the recession will be caused by the tightening of monetary policy, which is lagging behind price dynamics for essentially two reasons. At first, many thought inflation was only due to supply-side shocks caused by problems along the global supply chain and war-related hikes in energy prices. They did not realize there was a very large component of excess demand in the United States due to over-expansionary fiscal policy implemented by President Joe Biden.

➜ *How has the US administration contributed to the rise in inflation?*

It launched expansionary fiscal policies that proved pro-cyclical, because the economy was already recovering after the 2020 recession. And for months the Federal Reserve exaggerated to attribute the rise in inflation only to supply-side shock. But there is also a second reason for the lag in monetary policy and this is more understandable: with official rates at zero or below zero, everyone was aware of the asymmetric risk of being wrong about the timing of tightening. Central banks, precisely because they were so close to the 'zero lower bound', knew that they would have very little room for maneuver in implementing policies to support the economy if a premature squeeze had created unexpected setbacks. On the contrary, they knew they had more room to react to excessive overheating: a delay in acting could be corrected more easily.

➜ *Isn't that a bit like the situation we are in today?*

We all now understand that this inflation will not stop without restrictive monetary policy. Even core inflation, without more volatile factors such as energy or food, is too high. As a result, real wages have dropped a lot, but in the United States there are historically very low unemployment rates and labor shortages, so a wage-price spiral has ensued. To change course, monetary policy has no alternative to raising unemployment. Because inflation slows down if the economy slows down. It is difficult to gauge the right measure of monetary tightening. The economy is like a huge ocean liner, responding slowly and imperfectly to economic policy maneuvers. It will have to get very close to recession and probably enter it, for the Fed to be able to reduce inflation.

➜ *Is the same true for the euro area?*

The euro area is in a similar but slightly different situation. Excess demand is certainly less pronounced, fiscal policy has been less expansionary and unemployment is on average higher. But Europe is more exposed than the United States to rising energy prices and the contractionary effects of war. To thse recessive tendencies, soon will be added monetary policy that is likely to become less expansive and perhaps even restrictive. It is likely that Italy and perhaps also Germany will go into recession

in the second quarter of this year. Monetary policy has yet to begin to become restrictive, it will do so in the months ahead and the considerations made for the United States are partly valid in Europe as well. The monetary policy of the European Central Bank has less of need to become strongly restrictive, especially if the price shocks on the supply side are not passed on to wages. In that case, the inflationary effect would only be temporary. But in Germany there is already evidence that wage contracts with unions are being affected.

➜ *A large part of the euro area economy is already in recession. Does the ECB not risk repeating the mistakes of 2008 and 2011, when it was frightened by above-target inflation and aggravated the ongoing recession by raising rates?*

In 2008 and 2011, the ECB's mistake was not understanding that monetary policy would aggravate the ongoing financial crisis and, in any case, we were in a time of a squeeze in demand. Now there is a supply-side shock and international demand has been very strong since the exit from the pandemic. Inflation today is not a local phenomenon, but a global one. And the euro has depreciated significantly against the dollar, thus potentially contributing to higher inflation. Given that there is the risk of expectations about inflation changing and wages starting going after prices, it is right to take away some of that expansionary push. Maybe it should have been done first. It is simply a matter of normalizing monetary policy.

➜ *Christian Lindner, the German finance minister, worries that the financial fragility of the most indebted European governments, Italy especially, is forcing the ECB to practice a more accommodating monetary policy than necessary. Is it a well-founded fear?*

I think Lindner is right: there is no doubt that one of the reasons why the ECB is shy about reversing the monetary policy cycle is the fear of Italian public debt instability.

Don't you find, however, that the European Union on the Ukrainian crisis has not shown the kind of cohesion and capacity for integration conversely seen during the pandemic? For example, joint purchasing of vaccines was decided in 2020, while today major EU countries compete against each other to import liquefied natural gas from around the world

What you say about energy policy is true, but in foreign and defense policy, many have been surprised by Europe's response and show of cohesion. The unity was greater than what could have been expected ex ante and Putin certainly expected. This is important, also because in the case of foreign and defense policy the EU has no specific competence and this makes it more difficult to give a compact European response. After all, the covid shock was uniform, very similar in all countries, while the current energy shock is more heterogeneous: Italy and Germany are more dependent from Russia on gas than many other countries. Also, other geographic aspects now matter more. For example, proximity to Africa in the past was considered a disadvantage for Italy, but now it makes it easier for the country to diversify energy supplies.

➜ *Do you believe that this geopolitical crisis, like the health crisis, will push the European Union towards greater integration?*

The push towards political and institutional integration, all over the world, has always come from external common threats. The war is an opportunity to make progress in the European Union and it is possible that in the coming months we will make institutional reforms.

➜ *Is public opinion in European countries ready?*

On this issue, I conducted studies with Alberto Alesina and Francesco Trebbi a few years ago. Our conclusion was that perhaps we are exaggerating in perceiving Europe as a group of countries that have differing opinions and diverging interests. Within-country differences of opinion turn out to be of an order of magnitude higher than cross-country differences. Italy is full of internal heterogeneity, as are France and Germany. If we look at the opinions of citizens in European countries regarding political choices or cultural attitudes, there is enormous heterogeneity within countries, while national averages in opinion are very similar.

➜ *What do you mean?*

Let's take two averagely representative citizens who belong to different countries and two citizens of the same country selected with the same criterion. Well, the fact that two citizens are from different countries increases the probability of disagreement of a factor between 5% and 10%. But disagreement between citizens is large within countries, where there are however adequate institutions to reach political compromises. The point, therefore, is not so much heterogeneity between EU countries, but the existence of institutions recognized as legitimate by all and suitable for striking a balance between political differences. ■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Disruption theo

From Joseph Schumpeter to Clayton Christensen, the economic theory of innovation has proposed three models: radical innovation, incremental innovation, and disruptive innovation - the latter upsets the market, emerging from below. Born and developed in the early days of the digital revolution, disruptive innovation explains phenomena such as MP3s and Airbnb and has disrupted the scientific and managerial communities themselves, leaving the world of theory to enter common parlance, with all the attending risks

by Gianmario Verona @

Ever since Joseph Schumpeter, the heterodox Austrian economist whose two extraordinary publications at the dawn of the twentieth century opened the eyes of the world to the importance of economic growth and business cycles, economic literature had known only two types of innovation: radical and incremental. There was the steam engine, then the railways, the first automobile. Innovations that had changed the world, to paraphrase a famous book from MIT: "radical" because they proposed a new product idea through a new technology. But success also depended on the ability to imitate and differentiate with respect to competitors, to know how to better serve a market without changing the product concept and technology: the ability to make "incremental" innovations, that is, by innovating in an evolutionary fashion. For example, when Alfred Sloan at the head of General Motors shrewdly came up with the idea of selling cars "for every purse and every purpose," he undermined Ford's dominant market share that was based on the belief that the aggressive price strategy and functionality of its single-color Model T were enough to

GIANMARIO VERONA
Rector and Full Professor of Technology and innovation strategy, Bocconi University

ry (and practice)

dominate the market.
But then, in 1997, Clayton Christensen came. The publication of his doctoral thesis on the computer disk drive industry resulted in the book *The Innovator's dilemma*. When new technologies cause great firms to fail which became a New York Times and Financial Times bestseller and introduced us to the term "disruption", a third category of innovation. Christensen, being very religious and having been mythologized as a "guru" by many managers over time, had a biography which if read today has an air of predestination. An undergraduate degree from Brigham Young University (he was a Mormon) with a major in economics, MPhil at Oxford, MBA at Harvard, and then a very promising career as a consultant to multinational corporations such as BCG, he made the unusual decision at a rather advanced age to pursue a PhD at Harvard, which he received when he was forty years old. The then Assistant Professor of Strategy and Technology at Boston University observed that in some markets, innovation was far subtler than had been realized until then. The classic case of mini-photocopiers helps us better understand what is meant by "disruptive innovation".
The desktop mini-copier is a small copier and as such it certainly cannot be defined as a radical technological innovation, compared to xerography. Defining it as incremental is also limiting, since to design and develop it, you need to distort the architecture of the product by equipping it with technological components that are not only smaller but also characterized by an engineering interdependence in a more limited space that imposes new elements and excludes others. Its launch changed the market forever. In fact, despite the fact that the product was conceived for small offices and for individuals who could not afford the large, high-performance Xerox copiers, Canon's determination to work on technological quality over time and maintain a relatively low price has changed the tastes of the entire market over the years, turning it into the most desired product concept.
Apart from disk drives and mini-copiers,

Christensen's merit, as the subtitle of his book also highlights, is not so much tied to identifying a third category of innovation halfway between incremental and radical, but in illustrating the consequences that disruptive innovation has on large multinationals - the reason for the enormous success of his model. In fact, in the case studies analyzed, large companies often have disruptive innovations in their bellies. And it would be odd if they didn't have them, since they spend sums on R&D that vary from 3% to 25% of total turnover depending on the industry. The problem is that even when they patent innovations, firms often cannot manage to put them on the market - they listen closely to the customers already served, who typically like the current offer, and do not have the courage to cannibalize the market share of their own products. Hence, some competitor, from another sector or in the form of a start-up, who lacks these cognitive and economic forms of inertia, manages to launch it and over time the product becomes a real "disruptor", forcing the leading company suddenly to follow rather than lead the market. These disruptive innovations, among other things, enter the lower market segments and progressively position themselves higher because they make the new concept the dominant one in the market over the long term. Famous in this regard is the case of Sony which owned the MP3 patent but did not want to challenge Napster in the digital world of content distribution in 1999, only to realize that with the introduction of the iPod by Apple in 2001 the world would no longer want CDs but MP3s.
The success of the theory is also linked to the moment of its release, when the world was becoming more digital and guided by the logic of the internet and social networks. Many services and products that have since emerged in the digital world recall the logic just highlighted and have been associated with disruption. The Airbnb platform is a case in point: it certainly cannot be defined as a radical innovation (it has not created a new hotel service) or incremental (it has not segmented the hotel business up or down). It was born as an economically efficient solution with variable quality of service (the customers of the platform, as we know, are not professionals, but normal owners who decide to make their homes available) to solve the problem of reservations in "fully booked" destinations. Ignored by the big names in the sector such as Marriott and Sheraton, the platform has slowly redefined the concept of service in tourist accommodation from the "bottom" of the market, becoming the market leader and causing the hotel industry leaders to follow its behavior.

Disruption theory has been validated by many case studies and by various industry analyses carried out by Christensen and colleagues through replication studies. But various ideas advanced by the original model have been falsified and the model itself has come under heavy criticism for the excessive divulgation and trivialization it has produced. Harvard historian Jill Lepore's trenchant critique in the *New Yorker* is famous, or the more sophisticated article by colleague Andy King of Boston University in the *Sloan Management Review*. Even in the special issue on *Disruptive Innovation* of a journal very popular in innovation studies, *Journal of Product Innovation Management*, the editorial accused the theory of potentially being dangerous, as any fund set up on disruptive innovations would have to close a few years after its opening due to the difficulty of identifying them correctly.
Christensen passed away prematurely two years ago. Today if we google "disruption" we get 160

Tell me what you thi

There are innovations in technology, in work, in transportation, but also in the very possibility of interacting with others, which have really revolutionized the market and our lifestyles which, in retrospect, can be seen as real game changers. On the other hand, there are innovations which were imagined to be disruptive, but have not really turned out to be so. Here Bocconi professors helps us discover some of them

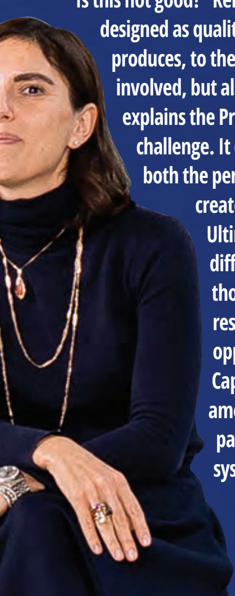
by Camillo Papini @

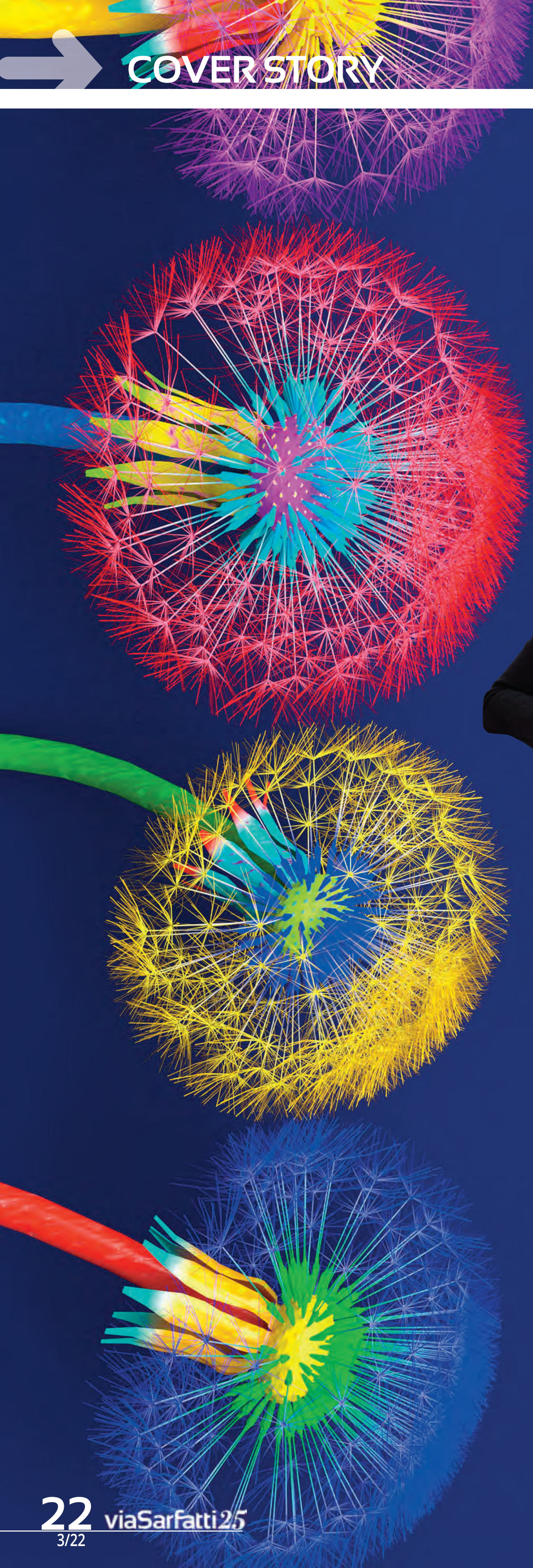
million results. With the expression "disruptive innovation" they are halved, but 71.5 million remain. Clayton Christensen produces "only" 10.5 million entries, proof that the term disruption has lost its technical meaning in managerial jargon and public language, to become an expression dear to the executives of this digital age. We might say that disruption has created disruption in the scientific and managerial worlds themselves.
In its most sober and original form, however, disruption theory is still taught today in technology management courses and included in the main textbooks on the subject, confirming the solidity of the idea and the importance of the implications that arise from it. More generally, for those who do research, the disruption model reminds us of the importance of the constant tension between solidity and impact: rigor must be put at the forefront, but it is important that it is addressed to topics that help our audiences improve their own awareness and knowledge of the issues they manage. ■

nk has changed the world

Rossella Cappetta → Flexible working

"Smart working is one of the most disruptive transformations of the last twenty years in the organization of work. It can open up to great opportunities, if you can deal with the challenge of organizational redesign that it entails: Smart working has proven to be an alternative to traditional office work, connected to fixed places and set times", summarizes Rossella Cappetta, Associate Professor of Organization, which finds the adoption by Italian of the English-language term "smart working" curious (remote work is mostly used in the US instead), since it implicitly conveys the aspiration for something socially desirable.
Is this not good? "Remote work can lead to better jobs, if it is designed as quality work, by paying attention to the results it produces, to the variety and degree of discretion of the activities involved, but also to its connection with other people's work", explains the Professor. "We have yet to tackle this redesign challenge. It can be a better job if it generates social value for both the person and the community and, at the same time, creates economic value for the company".
Ultimately, remote work "needs to be handled differently. For example, taking into account that those who work from home have less visibility with respect to colleagues and bosses, and have fewer opportunities for on-the-job training", concludes Cappetta. "It is therefore necessary to envisage, among others, new evaluation systems and career paths. In the same way, traditional monitoring systems will have to change".





Paola Cillo → Streaming

There have been two moments of discontinuity in the recent history of music, but only one has led to an important change in the recording industry: online streaming, "which represented a turning point in the consumption of music by the public and, at the same time, pushed record labels to renew their portfolio, with higher variation in the musical repertoire produced", explains Paola Cillo, Associate Professor at the Bocconi Department of Management and Technology. "Thanks to easy access to different types of songs via streaming, user choices cover a wider range of pop music niches. As a result, music producers are being urged to cover different, and in some cases new, market segments". Some labels, for example, have opened up to the rap genre, with a consequent commitment in the scouting of artists, or deciding to acquire specialized labels. "Even the transition, in the early 2000s, from the physical support to downloading files was a moment of discontinuity in the history of the industry, but only the advent of streaming from 2006 onwards actually pushed labels, around 2012, to substantially revise their corporate strategies", remarks Cillo. "Moreover, the latest wave of innovation also influenced the very creation of songs. New songs and melodies began to be produced both in terms of musicality and duration. The result is that those who believed most in this new kind of creativity have reached higher positions in the music charts".

Nicoletta Corrocher → The smartphone

The daily use of smartphones has triggered a revolution that began in 2007, with the market launch of the first iPhone. That disruptive innovation has given rise to another element of discontinuity: the app system, a global market of about 140 billion downloads in 2020, growing by 24% a year, considering both the Apple and Android operating systems. "The first definition of smartphone dates back to 1997 but not all mobile phone companies immediately understood the potential of the new product and, above all, its impact on the consumer market", says Nicoletta Corrocher, Lecturer of Innovation Economics at the Department of Management and Technology of Bocconi University. "The telephone stopped being used only for communication and began to take over the typical functions of the personal computer. It was such a transformation that it also led to the complete replacement of the then industry leaders". Moreover, confirming the initial vision of the smartphone as an entertainment tool, about 39% of current downloads concern game apps.

"The world of applications is an economy of its own that shows no signs of contracting", relaunches Corrocher, "and, although there is a small number of applications with many users and conversely many apps with few users, there is still room for others to make their debut". The challenge of the future? "The winning app will be the one capable of commanding the greatest user attention," concludes Corrocher.

Giada Di Stefano → Customer reviews

There is an element of modern daily life that has been expressing all its disruptive force for years and that, today, shows no sign of abatement. Indeed, "online consumer reviews are broadening their reach," explains Giada Di Stefano, Associate Professor at the Department of Management and Technology at Bocconi University. "We started by publishing reviews and ratings of hotels and restaurants on digital platforms, and now rating reviews are available for many products and services, including your doctor. Their strength is that, even if written by ordinary people, they accumulate one after the other, gaining weight. And by sheer force of numbers, it becomes impossible to ignore them".

But, when a company responds, admitting the error and promising to remedy it, isn't the problem be solved? "Today, even the most famous restaurants respond to consumer reviews and customers appreciate it", Di Stefano explains, "but this does nothing but draw the attention of subsequent customers to confirming whether or not that glitch in service has really been smoothed out". The paradox of online reviews? According to the professor there is no doubt: the fact that they compete with the historical guides which give stars to the best restaurants: "These are different evaluation systems but of both have their importance and the ability to guide corporate strategies".

Charles Williams → Tesla and electric cars

Is Tesla disrupting the automobile industry? The company's electric cars are groundbreaking and are reshaping the auto industry, with many established companies following Elon Musk's lead to offer high performance and attractive electric models. There is no doubt that the company has taken great risks and succeeded where few others had before. But disruption means something very specific in technology and strategy. As aggressive and smart as it sounds to throw around the word "disruption," we lose some of its power when we abandon that meaning. A disruptive innovation is one that established firms ignore because it offers performance features that do not appeal to existing customers, that only appeal within a small market segment.

Some innovations then disrupt an industry by growing out of their small niche and stealing the entire market. This happened, for instance, with steel mini mills. But this doesn't look like the pattern we are seeing with electric vehicles. While Tesla's design and brilliant marketing have kept it perched atop the electric vehicle market, strong offerings from traditional automakers - from Porsche to Volkswagen and Hyundai - are going to keep the company fighting hard for market share.

That doesn't really resemble an innovation that has disrupted the whole industry. So, from the perspective of Associate Professor of Management Charles Williams, "while Tesla is an innovative company with a big impact, it does not seem like a true case of disruptive innovation. For understanding the future of the industry, this can make all the difference".

Andrea Fosfuri → Skype

Covid has underlined the decline of the platform that used to be the stanard for internet calls: Skype. In the past, its disruptive force was such that the English verb "to skype" was coined to indicate the possibility of making calls thanks to new technologies. "The pandemic has instead reiterated the fact that Skype has exhausted its innovative reach since it was acquired by Microsoft, which then launched Teams in 2017, playing a similar function but within a broader package of services", says Andrea Fosfuri, Full Professor at the Bocconi Department of Management and Technology. Today the market for video conferencing is mature: there are several platforms available and many of these are specializing, for example, in the management of multi-conferences, to stand out from the competition. "There is also WhatsApp that allows you to make calls and, thanks to the new use that young people have begun to make, has transformed the written message into a voice message", continues Fosfuri, adding that the exchange of voice messages resembles an asynchronous phone call. However, according to the professor, the revolution of Skype and above all of the subsequent digital platforms has also ended up influencing the classic telecommunication operators which now, not surprisingly, focus their commercial offer on data traffic and offer the option to make calls free of charge.

Ferdinando Pennarola → Logistics

A truly disruptive phenomenon can also withstand the shocks of discontinuity factors. It is the case of the international logistics system which, after its great take-off in 2013, has had to face the pandemic since 2020, and now, the consequences of the war in Ukraine. "The scope of logistics will remain global, most cargo will continue to travel by sea, and Chinese or South Korean ports will continue to function as the largest hubs for container ships," explains Ferdinando Pennarola, Professor of Business Organization and Information Systems at Bocconi. "Except that now the logistics are trying to cope with new kinds of shocks, such as Covid and the conflict in Eastern Europe. Therefore, the medium-term forecast that the evolution of international logistics will structure itself according to a more regional basis", for example around the region surrounding the Mediterranean. In this way, according to Pennarola, risk elements can be reduced, even if this reconfiguration is not a trivial operation and the various tradeable goods will travel along different distribution networks, depending on their type. However, "as long as volumes traded remain high, it will be better for companies to produce in their regional area of reference, rather than importing goods and components from afar", remarks the professor. "In the eyes of the consumer, confirmation of this reorganization will be the speed of delivery that will still be guaranteed".

Riccardo Zecchina → Quantum computing

Quantum computing, more than a currently disruptive innovation, is a promise of future disruptive innovation: that of being able to process in parallel a very large series of calculations. At the moment, we have not yet managed to build a complete computer based on quantum mechanics, that is, based the laws of physics that describe subatomic particles. "Yet, if we manage to create one capable of processing a sufficient number of quantum bits", explains Riccardo Zecchina, Full Professor of Theoretical Physics and Vodafone Chair of Machine Learning and Data Science at Bocconi, "the areas of application will be manifold, from cryptography and IT security to the design of new materials, from a more agile search in large databases to the fields of artificial intelligence and data science ". When can the first quantum computers be envisaged? "There are serious and motivated working teams in the US, in Europe and in China", comments Zecchina. "Don't ask me what time horizon we are looking at, but I remind you that some results on prototypes have already been achieved thanks to the collaboration between quantum physicists, computer scientists and engineers". Dedicated investments are coming from large technology companies, academic institutions and also from the National Recovery and Resilience Plan. Today, however, according to the Bocconi physicist, another milestone has been reached: from the cross-fertilization of experts coming from different subject areas, in fact, "a new scientific community is being born".

Bocconi

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The CEO's speech

A research study, destined to have a significant impact on management theory, relates the personality and way of communicating of business leaders with the performance of the companies they manage

by Kilian Theil and Dirk Hovy @

How does a CEO's personality influence the performance of their firm? In several episodes, the market has punished flippant remarks or polarizing tweets, but can we formally measure personality and detect its financial impact? In a work, we developed a text-based personality prediction model based on CEO speeches. Having predicted the personality of a large sample of American CEOs, we inspected correlations with the financial risk of their firms. Overall, we found that – all things equal – firms with CEOs of the MBTI introverted, feeling, and sensing type tend to face increased risk. Notably, our results are robust to CEO age and gender and several financial variables such as firm size and industry.

How does this work, exactly? You have probably heard of the Myers-Briggs Type Indicator, a popular tool for self-exploration. It classifies personality along the dimensions "extraversion–introversion" (E-I), "sensing–intuition" (S-N), "thinking-feeling" (T-F), and "judging-perceiving" (J-P). We found a publicly available database of celebrity MBTI scores based on crowd votes. As the data also contained votes for the best-known CEOs such as Elon Musk or Steve Jobs, we were motivated to explore is as an alternative to self-reported personality. A drawback of the MBTI is that the academic psychology literature disputes its validity. Research shows that it is not meaningful to binarize personality (i.e., extraverted or introverted) or classify it into 16 distinct types. First, we were therefore interested to explore the validity of the crowd-sourced MBTI measure compared to the more established Big 5 model. Confirming prior research, we found that the MBTI and the Big 5 correlate moderately to strongly. This shows that the MBTI seems to be a meaningful proxy for personality assessments despite its criticisms. Furthermore, we found that the overall agreement between the crowd voters was high, most notably for E-I and J-P. This further attests to the validity of our measure. We then trained a powerful language model predicting the MBTI of all 32 available CEOs in our dataset. As input, we used transcripts of their external investor communication. Then, we automatically inferred the personality of 22K American CEOs with a previously unknown MBTI personality. Taking the predicted personalities together with complementary data such as CEO age, gender, and fundamental financial variables (e.g., industry, firm size and valuation), we found a significant and robust correlation with future financial risk. Looking at the different dimensions of personality, CEOs communicating in an "introverted" and "feeling" manner tend to face increased risk. In contrast, "intuitive" communication tends to be associated with decreased risk. Our results have far-reaching implications for management theory, as it has long been hypothesized that the characteristics of a firm's top management also reflect in the firm's performance. Until now, however, only a few studies have been able to use labeled personality data of CEOs. As we also collected the speech recordings of external CEO communication, we plan to explore this data in more depth in the future. It is likely that features such as voice pitch and vocal inflection impact perceived trustworthiness and competence, which should also reflect in financial risk measures. On a cautionary note, our work has several limitations: First, the personality labels are based on crowd voters instead of self-reports. However, we accepted this constraint as it is unfeasible to have CEOs such as Elon Musk answer extensive questionnaires. Second, the training data for the personality prediction model is likely biased, since most CEOs in our sample are male, American, and tech industry leaders with a specific MBTI configuration. Hence, we expect our model to be less generalizable to other demographics, cultures, industries, and personalities. Moreover, we would like to advocate against the use of our or similar models for automated profiling and down-stream applications, e.g., hiring and investment decisions: As text-based personality predictors only work with a certain accuracy on average and overall for a large sample, they cannot be applied to single instances, i.e., persons. The risk of false generalizations, unequal treatment, and increasing societal inequity is too high. Therefore, while our results are encouraging, they also demand further research, validation, and prudent use of the proposed method. ■

THE PAPER

Top-Down Influence? Predicting CEO Personality and Risk Impact from Speech Transcripts, by Kilian Theil, Dirk Hov and Heiner Stuckenschmidt

THE BOOK

If companies are to become drivers of sustainable change, CEOs must also be able to transform themselves in order to contribute to a solid reputational space. How to achieve this? *Ceo branding nella reputation economy* by Gabriele Ghini, Stefania Micaela Vitulli and Alessandro Detto (Egea, 2021, 216 pp., €26, in Italian) offers a theoretical and practical guide to successful reputational models in the era of sustainability.

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Restarting social mobility by looking at the past

A study funded by the European Research Council highlights how social mobility in the pre-industrial age underwent very significant fluctuations. In a situation of immobility and growing inequality in the Western world, more and more social scientists are now studying the phenomenon to understand its causes and identify possible answers. The hope is that the ongoing crisis will lead to a break with the recent past

by Guido Alfani@

LEGGI L'ARTICOLO IN ITALIANO

GUIDO ALFANI
Full Professor of Economic history, Bocconi University

In the last few years social mobility has been the object of intense research, mainly because there are signals that western societies are becoming more immobile, in a context of growing inequalities. This impression is widespread also in the civil society and it contributes to foster unease and political and social instability. As usual, worries about the present lead to look at the past for some possible lessons. After all, our judgement about today levels of social mobility tends to change according to what we believe is the "normal" mobility of human societies and what are the historical factors that determine it. Not by chance, Pitirim Sorokin, the scholar who contributed more than anybody else to give systematicity to social mobility studies, placed among the key questions that we should strive to answer that concerning the tendencies of mobility in the very long run (has social mobility remained about constant across time, or did it change and if did, in which direction and why?). However, differently from economic inequality for which we now have good reconstructions of the long-run tendencies, very few studies have been able to produce reliable information about social mobility in the past. This, also due to some significant technical obstacles to its measurement based on the available historical sources.

A view quite widespread in recent historical studies is that in preindustrial Europe, the opportunities for upward social mobility were greater than it was previously believed. Individuals with high skills (artists, engineers, scholars or scientists) were often able to improve their social status and to accumulate sizeable patrimonies. Also the Church offered to individuals with relatively humble origins good opportunities of social promotion. Finally, in many parts of Europe merchants and entrepreneurs could join the local political patriciate, usually after the disbursement of a conspicuous sum. In the opposite direction, the American economic historian Gregory Clark has recently argued, mostly based on data for England and Sweden, that across history upward mobility rates were very low and basically stable in time. Furthermore, social-economic status would be transferred from one generation to the next in ways similar to the transmission of genetically-determined traits. "Nature", then, would prevail over education in determining status, which would appear to challenge the prevailing view among social sciences. Clark has been

much criticized, including for the method that he has introduced to measure mobility in the very long run based on the persistence of status among individuals carrying rare surnames and whose descendants can be identified with relative ease.
Analyses such as Clark's, which use quite indirect methods to roughly estimate social mobility, require to be checked with more traditional and "direct" approaches, based on the observation of tendencies characterizing individuals and families, generation after generation, in different contexts and historical epochs. These approaches, however, require large-scale campaigns of data collection (usually from manuscript sources) and consequently need large-scale funding: as is the case for the project SMITE - Social Mobility and Inequality across Italy and Europe 1300-1800 (www.dondena.unibocconi.eu/SMITE), funded by the European Research Council. Such project has already allowed to identify historical phases of higher or lower mobility and is exploring systematically the underlying causes. A first important conclusion is that, far from being stable across time, preindustrial social mobility was subject to very significant fluctuations: as in the period following the Black Death of 1347-51, which established across Europe conditions exceptionally favourable to the rise of new protagonists (in a context of relatively low economic inequality, after the levelling that had been caused by the plague itself). However, after two or three generations social mobility started to converge towards more modest levels. In southern Europe, the process of decreasing social mobility continued during the early modern period, a fact which became particularly apparent during the seventeenth century when not even the terrible plagues of 1630 and 1656-57 could invert the tendency. In Italy, in particular, in the mid-century a combination of difficult upward mobility, stagnant economy and growing economy inequality had become enrooted – a particularly undesirable combination, which is entirely analogous to that which characterized the country on the eve of Covid-19. From this point of view, we can only hope that the current crisis leads to a break with the past. ■

THE ERC GRANT

The goal of SMITE (Social Mobility and Inequality across Italy and Europe: 1300-1800) is to improve our knowledge of long-term trends in social mobility, from the decades immediately preceding the Black Death of 1347-49 up until the eve of Industrialization

That powerful social elevator called University

by Andrea Celauro@

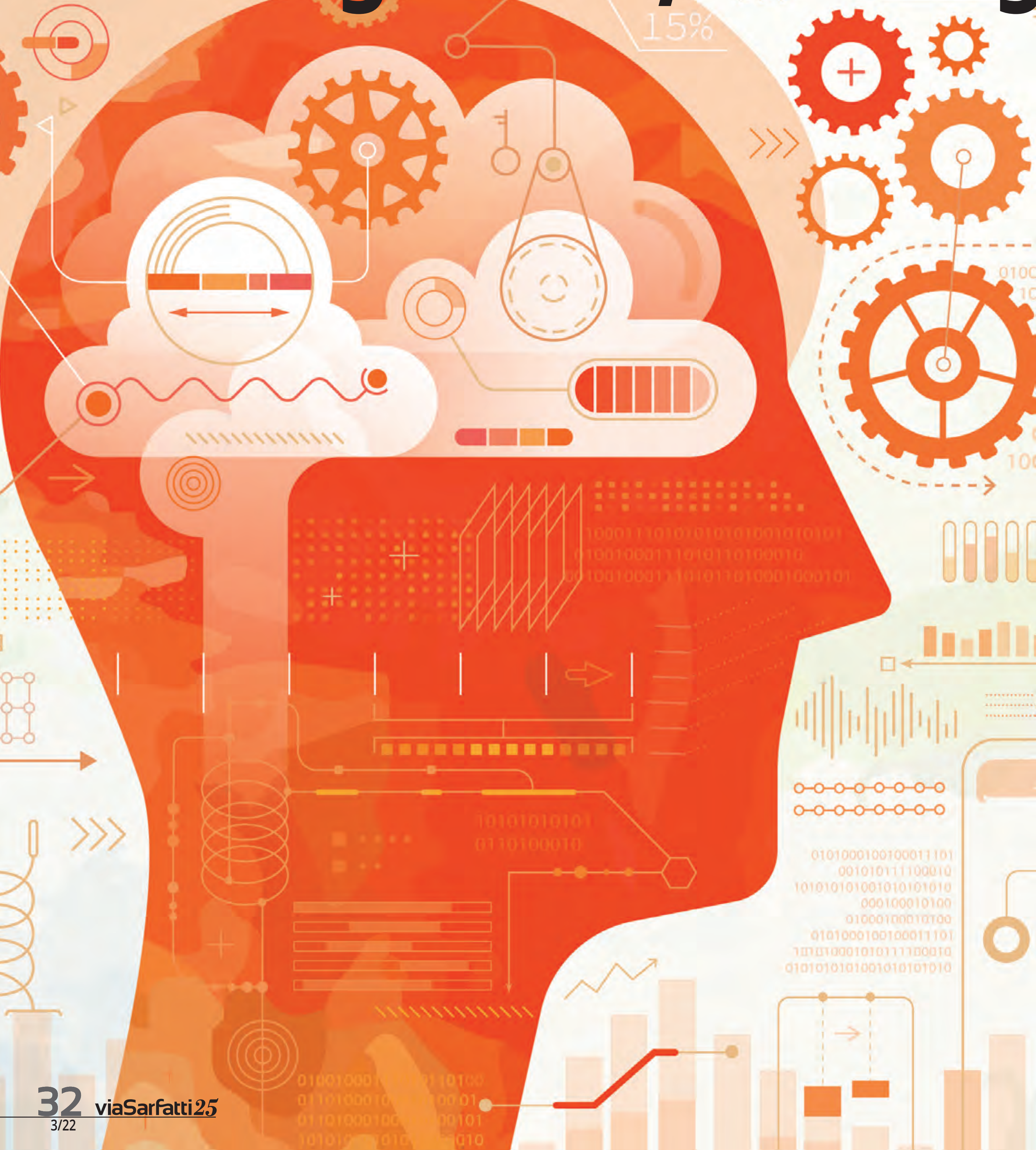
The University, a powerful engine of social mobility. **Erdit Hoxha**, 39, partner of Goldman Sachs in London, alumnus and donor of Bocconi, is convinced: "Good universities play a fundamental role in transforming the life and future of a young person, they are a perfect engine of change".
Erdit was born in Tirana and did middle and high school in Puglia, where he graduated with a scientific baccalauréat in four years instead of five , then did four years of university at Bocconi and earned a Degree in Finance thanks to an ISU Bocconi scholarship. He is very clear on the social function of universities: "Social mobility is an objective of society as a whole because it means ensuring that human resources can be used in the most efficient way, giving opportunities to those who deserve it the most". It is this spirit that made him look back and in turn support his Alma Mater through two forms of financial support devoted in part to students who, like him, come from Albania.
"It is not a question of charity", he continues, "but of investing in the merit of smart young women and men. And merit is the concept underlying the pact that is inherent between donor and beneficiary". A bond is created that contributes to creating a network that is fundamental for the very development of the University, as Erdit Hoxha says: "Universities that really want to compete at an international level cannot do without the support of alumni and alumnae. A network that is not made only of economic support, but a whole ecosystem of support that sees us, for example, become mentors and reference points for the new generations of students".
A virtuous circle he also experience of through Anglo-Saxon campuses, since he lives in the UK. "When I look at where my colleagues send their children to college, I see that it is always universities characterized by highly developed communities. A good university is not only the quality of teaching, but also the historical and future capacity of its network. And Bocconi has this potential".

ERDIT HOXHA
Graduated from Bocconi's Bachelor of Economics and Finance (Clefin) in 2004 with a thesis on derivatives structuring and trading. "From those years I particularly remember my stay at the Bocconi dorms, which was a unique experience. It was there that I met some of my current friends," he recounts.

The hand the University extends to its students

By focusing on support with the objective of social mobility and looking at the numbers relating to first-year students, it emerges that in the current academic year there are 545 first-year students supported with need-based financial aid. The total relates in particular to four groups of benefits: those relating to Una Scelta Possibile, the program for disadvantaged students, those related to 'Diritto all studio' public funds, those relating to lower income brackets and total and partial tuition exemptions. The role of the University donors is also important in supporting students. The support comes from alumni, individuals, companies or foundations: in the current academic year, 107 first-year students have been supported thanks to tuition exemptions and scholarships funded by donors. Among the forms of financial aid promoting social mobility supported by private sponsors, in addition to Una Scelta Possibile, there is Investing in the Future, a program powered mainly by small donations, and the Named Fund to support students, supported by companies and foundations. Not only that, donors are also involved in projects beyond study at University: through the 1stGEN@UNI project, Bocconi and Citi Foundation are working together to promote university education among Italian high-school students coming from disadvantaged backgrounds, while jointly with the Labia Foundation there is a similar project involving students from South Africa. These projects really open the gates of higher education to talented teenagers who would otherwise see their potential limited.
"In the 2021-2025 Strategic Plan, Bocconi commits to acting as a social elevator," explains **Catherine De Vries**, Bocconi's Dean for Diversity and Inclusion. "In order to make good on this commitment, Bocconi offers a large array of initiatives and opportunities based on merit and economic conditions, such as financial aid awards and scholarships. We also engage in outreach activities with high schools in deprived areas. With these activities we are involving students, faculty, staff and alumni on our campus to help and reach out to communities in need to foster a greater understanding of social inclusion and work towards even more inclusive and effective solutions in the future."

The algorithm, a tool ag



LEGGI L'ARTICOLO IN ITALIANO

gainst populist rhetoric

In the context of a democratic framework, it guarantees the representatives and the represented to exercise choice and control over the decision making process

by Graziella Romeo @

There is no shortage of critiques concerning the use of AI in public decision-making processes. Scholars, for example, have described algorithms as a "toxic cocktail for democracy" by pointing at the ever-growing availability of big data that can be manipulated to influence public discourse in specific (problematic) directions. Can we flip over the argument and make a case for harnessing the potential of digital technologies to increase the quality of democracy in times of rampant populism? We can actually resort to democratic theories that build on purely input frames to encompass the complex dimension of both political processes and policymaking.

Let us attempt to provide a non-exhaustive classification by looking at the steps of policymaking and decision-making procedures. In the context of public decision-making, algorithms can function in several ways. AI can: a) represent the world by, for example, proxying demographic data; b) predict or test the desirability of a given course of action in light of the results that the latter may determine, such as immigration detention risk assessment; c) reach a decision, generally on the assumption of the inherent reliability of the result and/or efficiency of the process, by, for example selecting individuals who will benefit from an allocation decision that had been made within the traditional political process; and d) act as an algorithm-manager by supervising and controlling public servants who are required to make complex decisions.

In each of these scenarios, algorithms play different roles. Representation and prediction functions imply that algorithms can provide decisionmakers with accurate information concerning a given political option. Therefore, algorithms do not replace political choices, but instead they create the conditions for a political alternative to be confronted with concrete outputs. The selection function uses algorithms to speed up procedures that would otherwise require careful and lengthy examination. Algorithms can thus ensure the efficiency of the selective process and the consistency of results. In the scenarios depicted above under c) and d), the algorithm makes decisions instead of the decisionmaker identified via the ordinary political process.

GRAZIELLA ROMEO
Associate Professor of Constitutional law, Bocconi University

Against this backdrop, algorithmic decision-making is unfit to any of those tasks if it is expected to reach substantive decisions independently. In contrast, AI can boost democratic processes if some conditions for its proper functioning are observed. In particular, by unpacking the logic of democratic legitimacy, we can conclude that AI needs to be coupled with the need for 1) understanding and selecting civic issues that deserve to be addressed by political institutions; 2) controlling which issues reach the democratic institutions; 3) evaluating and challenging the results of a given course of a decision taken by or on account of an AI. In other words, algorithms can increase democratic legitimacy at times of rampant populism, provided that their use takes place within a framework that maximizes political equality and rational decision-making by enabling wider participation, consideration of diverse social issues and oversight of the decisions made.

Under those conditions, the efficiency and the representation of reality that an algorithmic process may produce expose the fallacies or the "easy truth" of populist rhetoric. Algorithmic decision-making is not good because the output is intrinsically trustworthy. It is good as long as it is embedded in a democratic frame that enables both the represented and representatives to exercise choices and control over the decision-making process. In this way, algorithms can expose the populist rhetoric by being an instrument of knowledge and, therefore, a tool to read reality and help solve its problems. ■

THE PAPER

From Poisons to Antidotes: Algorithms as Democracy Boosters, by Paolo Cavaliere and Graziella Romeo

Going beyond bureaucracy to restart the economy

For years, OECD countries have been working on public sector reform, regulatory simplification and empowerment of human capital. Italy is still lagging behined in implementation and this leads it astray from the growth path of other advanced countries. Will the country be able to shift gears?

by Giovanni Valotti @

GIOVANNI VALOTTI
Full Professor
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Generations of economists, long before being pundits and politicians, have been discussing the role of the state in the economy. The supporters of the invisible hand of the market usually find strong arguments in its favor during phases of economic growth, often complaining about the inefficiencies of public administration acting as a brake on the economy. On the other hand, in phases of economic stagnation or recession, defenders of the role of subsidies and public investment as an essential condition for a restart of the economy seem to take the upper hand. The whole world, after a period marked by the pandemic, is now confronted with unexpected war scenarios, leading to a highly unstable geopolitical framework that has strong repercussions on growth expectations. In particular, in Europe the energy crisis is undermining the competitiveness of firms, as well as generating unexpected pressure on household budgets. In Italy, the great expectations raised by EU Recovery Plan are beginning to waver in the face of the urgencies associated with the new winds of crisis. But it is precisely at times like this that the public sector demonstrates its strategic importance, for better or for worse. That is, no European country imagines facing this emergency situation, as well as those which could unfortunately follow in the future, without the planning and construction capacity of public administrations. It's public actors that inevitably distil policy, allocate substantial resources for its implementation, as well as the actual rolling out of investment plans capable of generating growth in the medium term, supporting the competitiveness of businesses and promoting the well-being of citizens. For this to happen, however, we need a modern and efficient kind of public administration, finally de-bureaucratized, capable of deciding and implementing quickly policies. Precisely for this reason, reforms of public administration across OECD countries in recent decades have strongly insisted on some common cornerstones: the streamlining of large apparatuses, the simplification of regulatory systems and controls, accountability of public managers for results, digital innovation and, last but not least, public-private collaboration. All this can be traced back to two great trajectories of change: making the public sector as efficient

The value of public administration

The restart after the pandemic? Public aministrations can play a central role and to relaunch the entire country system. SDA Bocconi School of Management is persuaded of this, as shown by call to action called PUBLIC VALUE: Public Administration that works conceived in partnership with the GEDI Publishing Group with the patronage of the Italian Ministry of Public Administration, ANCI and UPI associations of local administrators. The initiative, is part of SDABocconi4GOV, a project through which SDA Bocconi provides its 50 years of experience in the public sector to promote the change processes needed for a more modern and competent public administration, the ostensible aim of the National Recovery and Resilience Plan (PNRR) to spend Next Generation EU funds. The initiative intends to incentivize innovation and modernization in the public sector, by implementing the good practices that enable citizens and businesses to have more efficient, inclusive and up-to-date services. In June, an event at Bocconi will feature the best projects presented by those who participated in the PUBLIC VALUE call to action.

as the private sector, even competition is absent; acknowledging that the government cannot do everything and cannot do it alone, consequently restricting the scope of intervention for traditional public administration and expanding, on the other hand, the forms of integration with the private profit and non-profit entities.

In other words, to emerge out of periods of crisis and deal with new uncertainties, businesses and citizens need public intervention and vice versa. On all these levels, our country has advanced a lot on paper, much less in substance. The dismantling of the vast public apparatuses dates back to the time of the Blair government in Great Britain, just as the Société d'économie mixte is rooted in the evolutionary history of public intervention in France. From government to government, and therefore from reform to reform, in Italy we prefer to be passionate about grandiose plans for bureaucratic transformation, which inevitably collide with legal obstacles and corporatist resistance when the time of implementation comes. We are the country of the "implementation gap" and this risks moving Italy away from the potential growth path of most advanced countries.

The next five years will be decisive, a sort of litmus test for the public sector. Macroeconomic indicators, the reduction of inequalities of all kinds, the increase in human capital attractiveness, the promotion of social mobility, not least the ability to face the great environmental challenges, will tell us, with numbers in hand, who is able to give public administrations the role they deserve compared to those who are still waiting for unlikely salvific reforms. ■

THE BOOK

The management of the pandemic emergency has highlighted the need to deal promptly with unpredictable and urgent events and problems. Under these conditions it is no longer enough for public administrations to "do well" - it becomes equally important to "do quickly," as Giovanni Valotti points out in his *Reactive PA – Lezioni dalla pandemia per il cambiamento della pubblica amministrazione* (Egea, 2022, 356 pp. €44, in Italian).

Among the objectives of the Italian National Recovery and Resilience Plan (PNRR) there is the reorganization and digitalization of public administration. Bocconi alumnus Valerio Iossa heads the new unit for the implementation of the plan in the Italian civil service and explains what the focus will be on

Objective: a simple and innovative public administration

by Camillo Papini @

Simplifying, reorganizing and digitizing the public administration is the foremost commitment of Next Generation EU across Europe. Not surprisingly, it is a line of intervention that unites the needs of Italy and other EU member countries, which must bridge gaps along the path of innovation. In Italy alone, the European recovery plan makes available an overall budget of €1.3 billion, with the intention of "implementing a reform of the public administration. which, unlike in the past, is not disconnected from its actual implementation in the daily practice of management. The final goal is to offer faster services, that can be accessed by the vast majority of the population and are easy to use thanks to digital technology, in a homogeneous way throughout the national territory", says **Valerio Iossa**, Director General of the new mission unit for the implementation of the PNRR at the Department of Public Administration in the office of the Italian Prime Minister. According to Iossa, the very nature of the plan promotes the modern and efficient reimagining of public administration, since the EU Plan is structured to credit the supporting funds only after the targeted results are achieved and certified.

➜ What are these objectives concretely?

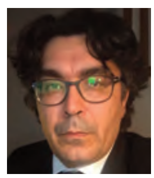
For example, we must be able to train 750,000 employees by June 2026. We must simplify 600 procedures, especially those concerning the ecological transition, urban planning and construction, manufacturing, procurement and administrative procedures. Therefore, we will intervene in three macro-areas: the recruitment of personnel, the simplification and digitalization of internal or transversal processes in several administrations and, thirdly, the development of skills of the current employees in public administration.

➜ How can recruitment help streamline processes?

Recruitment will be skills-oriented rather than knowledge-oriented. If right from the selection phase, the different skills of job candidates are highlighted, especially the digital ones, then public administration will be able to rely on more suitable personnel for its various roles, for example to plan the transition of public administrations from organizations that are mostly analog to fully digital ones. In parallel, it is necessary to develop the skills of those who are already civil servants, encouraging their professional upgrading through career development and salary incentive. In the eyes of citizens, all this will translate into faster delivery of existing services and new ones available digitally. Just to give other examples, we have already halved waiting times for the release of Environmental Impact Assessments; we are working to make sure all the documentation needed for authorization to start production or construction can be submitted online. Obviously, also the release of administrative authorizations will take place electronically.

➜ What are the risks of this epochal transformation of Italian public administration?

The risks that need to be taken into account in order to seize the opportunities envisaged by the National Recovery and Resilience Plan are essentially two. It is necessary to avoid that implementation must undergo an excessive number of checks, which could hinder the rollout of the plan. Finally, it must be considered that proper implementation also depends on local and regional authorities, which must be involved because citizenry will interface with them when they access the new digital services. ■



VALERIO IOSSA

Before directing the new mission unit for the implementation of PNRR at the Presidency of the Council of Ministers, Valerio Iossa worked at the Municipality of Milano as director for personnel. He holds a Master in Public Management from Bocconi University. Of his period there, he says "it was the greatest experience of training in complexity and its governance."

THE COURSE

The goal of SDA Bocconi's Innovazione digitale nella pubblica amministrazione e nei servizi pubblici course is to provide tools to address digital transformation in its entirety

(Public) information s

Disclosure of information facilitates coordination among actors along the supply chain. This is demonstrated by a study based on the textual analysis of annual reports and press releases conducted on a sample of 62,231 observations from 1997 to 2017

by Lynn Wang @

LYNN WANG
Assistant Professor of Accounting, Bocconi University

Information sharing among supply chain partners is critical due to the information asymmetry inherent in relationships between customers and suppliers. For example, customers of an intermediate firm in the supply chain may directly interact with finished-product end users and thus possess more precise information about market demand conditions. In addition, imperfect information about a contracting partner's behavior increases concerns about opportunistic behavior by business partners -e.g., reneging on contractual obligations. Thus, information sharing plays an important role in facilitating coordination and monitoring in supply chain collaborations. One feasible way to share information among potential contracting partners along the supply chain is via public disclosure.

While firms can arguably communicate with partners through private channels, public disclosure may still be incrementally useful for several reasons. First, public disclosure can be more cost-effective in the presence of a large number of current and potential supply chain partners that are all concerned about the firm's future business plans in order to meet their own production needs. Second, information conveyed through public channels can be more credible than privately shared communication, because public disclosures are subject to litigation and reputation considerations.

Illustrating the role of information about firms' overall product strategy in facilitating coordination between firms and their suppliers and customers, the chief procurement officer at Mondi Group recently

haring is a plus

highlighted the role of transparency about ongoing innovation between her group and its suppliers in improving their own products, acknowledging that supplier - enabled innovation means that you build working relationships with selected suppliers, with full transparency around areas of innovation where you match, so you can enhance innovation together.

By publicly disclosing information to supply chain partners, firms can credibly signal their production strategy, allowing supply chain partners to better coordinate their own production decisions. However, this need for public disclosure in coordinating production is predicated on the presence of current or potential vertical contracting relationships. Thus, if firms have a reduced reliance on vertical supply chain partners as part of their production process, then public disclosure becomes redundant and is no longer valuable for coordination purposes. Therefore, internally organizing vertical production processes reduces and, in the limit, eliminates the usefulness of public disclosure as a coordination mechanism with supply chain partners.

We examine whether and how vertical integration affects the supply of public information. We focus on firms' voluntary product strategy disclosures since these can be particularly informative for their contract counterparties along the supply chain. In the context of supply chain contracting, product strategy disclosure serves two main purposes. First, it can smooth the development of new production strategies. For example, a supplier that anticipates the production of a new product can engage earlier in the necessary investment to supply its existing client. Second, product disclosure can also reveal information about a firm's competitive advantage and production capacity, thereby signaling its ability to fulfill its implicit contractual claims. Using two measures of product disclosures - based on textual analysis of annual reports and press releases - for a sample of 62,231 firm-year observations from 1997 through 2017, we find that vertical integration is negatively correlated with both product disclosure measures. We also find that firms that become more vertically integrated reduce public disclosure about their product and that the reduction is (i) less pronounced for vertically integrated firms in relationships that entail less credible public disclosures, (ii) more pronounced among firms which rely more on public disclosures when private communication is less feasible ex ante. Thus, while most prior disclosure literature focuses on the monitoring and valuation roles of public disclosure, the collective results of our study provide evidence of another important role of public disclosure: namely, facilitating coordination among supply chain partners. ■

THE PAPER

Firm Boundaries and Voluntary Disclosure,
by Thomas Bourveau, John D. Kepler, Guoman She, Lynn Linghuan Wang

Good governance is for everyon

A study of 5,400 companies conducted by SDA Bocconi highlights the evolution of increasingly open and diversified corporate leadership, highlighting the positive correlation between governance and performance

by Alessandro Minichilli @

The persistence of uncertainty and the intensification of the risks which our companies are exposed to threatens the recovery after the pandemic, and could also slow down the sustainable transformation underway.

As emerges from the 2022 Report of SDA Bocconi Corporate Governance Lab, uncertainty accelerated changes in in top management structures which had already been occurring in recent years. Considering a large sample of 5,400 firms, the report investigated the role of governance in helping entrepreneurs stay the course in the face of mounting challenges and adversities.

At the end of 2020, 14.3% of the companies under investigation had improved one or more key aspects of their governance both in terms of structure and of the mix and profile of skills represented. Specifically, 182 companies have opened up their Boards of Administration, introducing 298 new external board members bringing heightened skills in finance and accounting, as well as in risk management and ESG. Furthermore, in 229 of the firms monitored, the diversity index significantly improved, in terms of gender and also in terms of age and geographical origin. There is also an important evolution in structural aspects, with 79 companies abandoning the sole administrator model in favor of the establishment of a board, 377 companies separating the positions of President and CEO, and another 251 overcoming the collegial leadership model in favor of unified and clear business leadership.

A second important result confirms the importance of governance for corporate results in terms of resilience. Even in the context of the 2020 generalized decline in sales, the companies that

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worked to improve governance contained both turnover loss (-6.8% with respect to -8.7% in companies with unchanged governance), and decrease in profitability (decrease in ROA of 0.9 percentage points compared to -1.4 in the case of unchanged governance).

But our third finding is perhaps the most important: the role of governance in risk management, a crucial aspect in overcoming a succession of shocks that promises to last for a long time. The analyses show that, although companies tend not to consider risk in their localization choices, the presence of structured governance significantly mitigates this risk. In other words, good governance seems to be able to "reassure" the entrepreneur in making investments in low-risk countries (political, credit, climate risk), increasing their likelihood all other conditions being equal. On the other hand, and more importantly, structured governance reduces by a third the likelihood of deciding an investment in a country with high political and credit risk, and by a hefty 90% the probability of making an investment in a country with high climate risk.

From this and other studies on the subject, there is also another aspect that emerges: we need to discard once and for all the idea that good governance is necessary and useful only for listed companies, while it would lead to cost increases in entrepreneurial realities. Such objection is vitiated by the fact that it is necessary to clarify the

THE REPORT

Italian companies that have adopted more advanced models of governance have held up better during the pandemic. This is found in the 2022 Report by the Corporate Governance Lab of SDA Bocconi

LEGGI L’ARTICOLO IN ITALIANO

e and makes business less risky

objectives of good governance, which are inevitably different in the context of unlisted companies. In this case, governance should play a guiding role in supporting the entrepreneur, also being proactive with respect to the evolution of the company and its property structure. The need to reiterate the importance of governance in these contexts is also evident in the growing pressure of soft law not only in Italy but also in many other European countries: examples are the Wates Code ("Corporate Governance Principles for Large Private Companies") in the UK, as well as various experiences in Italy (such as the Corporate Governance Framework of Elite in 2019 and the Governance Code created by Bocconi and AIdAF in 2017, “Principles for the corporate governance of unlisted family-owned companies "). In March 2021, then, a first example of European guidelines was produced by EcoDa (the European association of independent corporate board members), titled "Corporate Governance Guidance and Principles for Unlisted Companies in Europe" which is being adapted to the Italian context. EU legislative and regulatory changes in the ESG field are also foreseeable, threading in the footsteps of an already vast body of environmental regulations. In any case, hoping that this will happen out of deep conviction rather than mere compliance, in the next few years companies will have to be ready to make a qualitative leap in governance, which is set to even more important and decisive than the recent past. ■

The evolution of the species

Models of corporate governance have changed and adapted across periods and places throughout history, influenced by various external factors: from company size resulting from technological change to the emergence of global investors, leading to international governance standards

by Andrea Colli @

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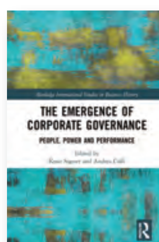
The set of normative elements that today goes under the label of "corporate governance" did not emerge neither with the appearance of the first joint stock companies, nor when companies started to adopt sophisticated organizational structures beyond personal, individual management style. It emerged when some other changes impacted the modern corporation.
First of all, the enlargement of the size of the enterprise (imposed by technological change making mandatory the exploitation of scale economies) to such extent that the necessary additional investments require an enlargement of its capital much beyond the capabilities of its founder or of the following generations in case of family firms. The consequent necessary support of third actors providing financial resources, either in the form of capital and/or debt. Banks (both commercial and merchant ones) performed this role, together with rich individuals but also by an increasing number of small private investors acquiring shares traded in stock exchanges. The increase in the number of the "holders" of debt and shares of capital made surfacing a conflictual relationship, between different categories of shareholders, "majorities" and "minorities".
Simultaneously, an earthquake is shaking the organizational structure of the corporation. To different extent in different industries (and places), ownership was not always, anymore, a synonym of management. The owners increasingly delegated the business of running the corporation to skilled professionals in exchange of reasonable returns over their investments, in the form of profits, and share value. Another conflictual relationship emerged, then that between the providers of resources – the shareholders – and those using those resources for purpose of profit (supposedly, in the interest of the shareholders, and not of themselves). Furthermore, an institutional commitment to develop a regulatory framework in

THE BOOK

Corporate governance is not just about models of best practice organisation or prescriptions following laws or social conventions. Corporate governance is also about persons of power seeking performance, and they do so in ways that transcend structures and pre-conceived notions of the structural set-up of the business, as Knut Sogner and Andrea Colli explain in *The Emergence of Corporate Governance* (Routledge, 2021).



THE COURSE

Evolutions in corporate governance pose new challenges, in terms of roles and effectiveness, for those who lead companies. The 'SDA Direcor's Program' course is an opportunity to enhance the necessary skills

order to regulate and put under control the above-mentioned potential conflicts which the process of corporate growth generated.
Historically, the events described above do not occur simultaneously, in all sectors, and everywhere in the industrialized World. The events started to take place in the US., over a multi-decennial period roughly starting from the last two decades of the 19th century, until the Great Crisis in the interwar years. Similar developments took place however elsewhere in the industrialized World, but with several "variants", due to the adaptation of capitalism to local culture and institutions. In Europe, for instance, the "linearity" of the US. model was heavily altered by the preponderance of banks over stock exchanges, of concentrated ownership (often including that of Governments) still overlapping with management, and of the presence of strong and assertive workers' movements – all elements which generated peculiar models of governance in the corporate affairs.
Furthermore, the evolution of corporate governance took place in coincidence with traumatic events which prompted institutional action in order to provide a regulation of potential conflicts and of the behavior of stakeholders. Again, this was an "asynchronous" process. Already in the 1930s the Great Crisis in the US., provoked a vast array of reforms as for instance the Standard Exchange Commission (SEC) dramatically enhancing the quality of financial reporting of listed companies, while in Europe were the privatizations and liberalizations of the 1980s and 1990s introducing for the first time effective institutional action in corporate affairs – as it happened in another major postwar economy, Japan, only with the financial crisis of the early 1990s. Other major institutional actions followed the wave of corporate scandals both in US. and Europe at the turn of the millennium, and the following Global Crisis of 2008-2009.
A further historical agent of change has been the rise of the global money management industry. Institutional investors, initially in the form of mutual and pension funds, have been increasingly relevant starting from the 1970s, in the US, then at the global level. Institutional investors increased considerably the demand for transparency, regulation, accountability and equal treatment of shareholders, to which in their turn companies reacted expanding the supply of self-regulation practices, including voluntary codes of conduct. The global nature of institutional investors has had, additionally, a further effect over the "globalization" of governance standards, which are now much more homogeneous at the international level than it was only twenty years ago. ■

Search for the governance you need

ENRICO MARIA BIGNAMI is chairman of the executive committee of Bignami Associati, a business, corporate, tax and governance consulting firm, as well as the statutory auditor of Eni. He graduated in Business Administration at Bocconi University and, today, is the leader of topic governance of Bocconi Alumni. During his university studies, he learned in particular that "we must privilege commitment and concentration, cultivate listening skills, problem solving and synthesis, but also know how to have fun. It was a period of great growth, fantastic and unrepeatable," says Bignami.

First the social and health crisis, then the current international economic and geopolitical instability have not only taught companies how to reorganize themselves in case of emergency but, above all, have pushed the top management to look outside for the new knowledge they need. Digital experts, logistics, global trade, specialists in procurement markets are just a few examples of the professional figures that may be necessary. In addition, the problem is that, often, "these skills are not present on the boards. They are to be found elsewhere. It is an opportunity for the board to begin to openup to the outside world or to strengthen its projection. Moreover, andwinds that significantly disturb the markets are increasingly frequent", says **Enrico Maria Bignami**, chairman of the executive committee of Bignami Associati, a business, corporate, tax and governance consulting firm, as well as the statutory auditor of Eni. "Those who are at the head of the company must have a valid team of advisors on the various issues of greatest interest to the company, especially in unlisted Italian companies", underlines Bignami. "The choice of the CEO himself must respond to the demand for specific skills. In Europe, between France, Germany, Great Britain and Italy, about 84% of businesses are family but, in other countries, the choice of the CEO among the members of the owner family is less than 50% of cases. In the Peninsula, on the other hand, the latter figure is also around 84%".

Are you saying that Italy does not stand out for the openness of its family businesses?

Italy is certainly one of the most advanced countries in terms of corporate governance. Abroad, anyway, they are not much more reactive to change. In both cases, however, I say that being the majority shareholder and leading a company are two elements that do not necessarily have to coincide. In addition, regardless of the CEO pre-chosen, running a business is a job for which you must be prepared; there are, for example, professionals, such as chief risk managers, to whom to entrust the systematic work of monitoring internal and external risks.

What is the prevailing model of corporate governance in Italy today?

It is still the one that sees the adoption of the traditional model of administration, with the majority shareholder who also holds the position of CEO on the board, flanked by a board of statutory auditors to control the overall work. And, if the role of the family is maintained but the weight of external management grows in parallel, then an optimal balance is achieved. More generally, however, it must be reiterated that there is no best model of corporate governance. Just like the choice of business organization which, in turn, varies according to the objectives to be pursued.

What is some practical advice to evolve positively?

Also learn from mistakes you avoided. In risk management, a "near miss" is defined as the situation in which we have almost had to face a problem or its consequences. Even if neither actually happened, it is useful to safeguard oneself from further similar dangers and their economic cost. Moreover, today, the repercussions of a problem can also affect, to an important extent, the very image of the firm. Just think of a possible environmental damage caused by the company, right now that the ecological awareness of the market is strengthening.

Is it all globalization's fault?

Protectionism and isolationism have grown around the world in what has become known as the backlash of globalization. Using recently collected data for 23 advanced industrialized democracies and global trade data, a study analyzes voting behavior and tracks trade policy interventions and concludes that international trade has not been the only factor causing political turmoil and that society must manage the distributive consequences of structural changes in the world economy in a more inclusive way

by Italo Colantone, Gianmarco Ottaviano, Piero Stanig @

A heated discussion has arisen around the recent rise of populist parties in advanced democracies. One of the most relevant phenomena linked to the populist wave is the so-called "backlash of globalization". In a recent work on this topic, we define this phenomenon as the political shift of voters and parties towards a protectionist and isolationist direction, with substantial implications on the policies supported and implemented by governments.
To document this backlash, we collected recent data from 23 advanced industrialized democracies in Europe, North America and Asia. The analysis covers the period from 1980 to 2019. We begin by providing descriptive evidence of the backlash in terms of electoral support for parties with protectionist and isolationist tendecies. Looking at the aggregate average, there is a visible decline from the early 1980s to the early 1990s. This "globalist wave" is then followed by a protectionist turn from the mid-1990s onwards. This trend is clearly noticeable in most countries. Very similar results are obtained when looking at the party composition of parliaments and governments. This suggests that the electoral support has translated into shifts in the composition of the decision-making bodies.
A protectionist shift is also detectable in terms of trade policy, from Brexit to the US-China trade war and the stalemate of the World Trade Organization Appellate Body. However, more favorable developments for international trade can also be observed. For example, the number of active regional trade agreements and, in particular, the number of free trade areas, has continued to grow. At the same time, average trade duties have continued to decline. Nonetheless, the use of temporary protective measures (such as anti-dumping and countervailing duties) has become more frequent and more pronounced. Overall, the evolution of trade policy appears to be consistent with the political dynamics described above.
The picture, on the other hand, becomes more varied if we look at individuals' positions on the issue. We do not find clear evidence of a generalized worsening of public opinion with respect to globalization. However, large minorities (and in so kme cases large majorities) of respondents believe that they have not benefited from international trade.
What are the drivers of the backlash of globalization? The available evidence allows us to conclude that the backlash is endogenous to globalization itself. For example, the regions most exposed to increased imports from China between the early 1990s until the 2008 financial crisis, due to their historical specialization in industrial manufacturing, were damaged in many ways: from higher unemployment to lower labor participation rates, from a greater use of disability and other social benefits to reduced wages, from a lower supply of public goods to a worsening of public health conditions.
However, the backlash is only partly being caused by international trade. Other factors, such as technological change, immigration, fiscal austerity in the aftermath the 2008 crisis, as well as cultural priorities have had a similar weight in driving observed political change. Borrowing from the medical literature, we describe this multi-causal nature of the phenomenon through the concept of "comorbidity", whereby several factors add up to generate the backlash. Advanced democracies must learn to manage the redistributive consequences of structural change in a more inclusive way to counter the populist trend. ■

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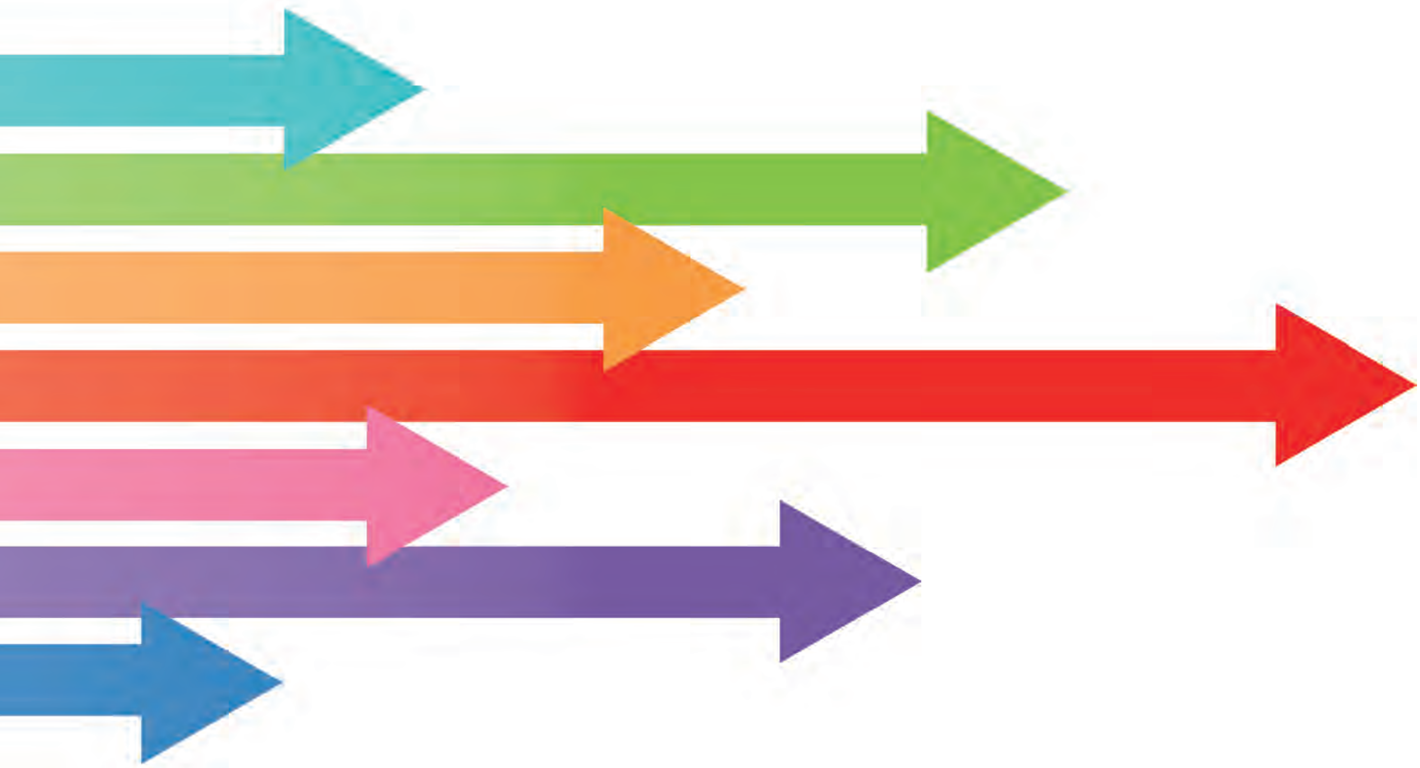
THE PAPER

The Backlash of Globalization
by Italo Colantone, Gianmarco I. P. Ottaviano and Piero Stanig

Learning that chang

es your life. Forever



Taking a new direction, perhaps one never considered before. Taking stock of one's existence and putting oneself back in the game. The Svolte project by SDA Bocconi and Corriere della Sera has told many stories of change originated by the new skills obtained through study. From the stories of individuals, who have turned their careers around thanks to upskilling or reskilling, to stories of transformation and reorganization of entire companies, thanks to targeted training. These are many different stories, told in 12 videos published during this academic year, but also told in the form of a theatrical script and recited live at the closing event last April 21 (we recount them here), such as those of Jhonatan Abd El Malek, Alessandro Cristiano, Titti Postiglione and Bernadette Bevacqua. And also collected in a special wall on the SDA Bocconi website by Giuseppe Soda @

Everyone, sooner or later, is faced with a potential Turning Point. Something that makes you change direction, take a turn and go somewhere else. In truth, in most cases, faced with potential change, we prefer to continue proceeding on our path, to remain in our comfort zone. And it's not hard to see why. In any case, taking a turn means leaving a safer shore, or at least one that appears to us more familiar, closer to who we are and what we know to do. Each turning point is, at least cognitively and emotionally, preceded by seemingly impassable Pillars of Hercules, which inspire fear to the point that in most cases people prefer to continue navigating along the usual path. This is also a relevant trait of our national culture, which is steeped in fear of uncertainty. In a famous study by Geert Hofstede on comparing national cultures (Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. Online readings in psychology and culture, 2(1), 2307-0919), with regard to the factor "aversion to uncertainty", Italy was ranked among the countries most culturally averse to uncertainty, with 75 points out of 100, against 35 for the United Kingdom and 46 for the United States. Fear of the unknown lying behind the turning points and twists of fate is a profound trait of our national identity. In one of the most extraordinary pages of poetry in the history of humankind, Dante sings the price Ulysses paid with his life for choosing to cross the Pillars of Hercules, the limits of the then known world. It is also for these reasons that Italy is a country that is struggling to regenerate itself.

The project called Svolte (Turning Points) was created by SDA Bocconi School of Management and *Corriere della Sera* newspaper with the aim of communicating, innovatively and esthetically, the role of knowledge, education and training in unleashing transformative forces and energies for change, both for people and organizations. The transformative element of training is condensed in the ability to deeply modify the hard components of skills, but also in the force with which it acts on a person's cultural and behavioral mindset. In this light, education is a regenerative force, a kind of palingenesis that leads to radical renewal. Much investment in adult education arises from the need for professional regeneration, which goes through a process, sometimes consuming from a psychological point of view, of questioning one's own professional identity. What is observed, however, is that transformation-oriented training not only produces people capable of changing their own personal reality, but also the reality of the organizations they work for. These are people who are able to challenge their assumptions and achieve professional transformation, leading to positive impacts across the entire organization, by encouraging change and stimulating the ability to deal with changes in business models, technology and consumer behavior. Thus, gathering the stories of turning points directly from the protagonists was a way of building a brief handbook of change, illustrating the human factor but also of the technical elements we need to go through when we decide to undertake a major change of direction in our career path. We are doing it here at SDA Bocconi, because we believe in the transforming power of knowledge. ■

GIUSEPPE SODA
Dean of SDA Bocconi School of Management

THE WALL

Svolte stories are also published in a special wall created by SDA Bocconi in which other alumni can also share their experiences. Here they are all collected together.

ALESSANDRO CRISTIANO
From Navy submarines to Amazon's supply chain management

Deputy commander of a submarine, the naval lieutenant decided to embark on a new adventure, changing everything from job to country

by Lorenzo De Belli @

Leave the comfort zone. You always hear it said.
"Try things out, take risks, dare. There is only one life. It cannot be wasted".
Ok, all very nice to hear and say, but then there are real lives. Those paths that take you to chase a dream you have had since you were a kid. I'm talking to a generic "you", but I'm talking about me.
My name is Alessandro and for a long part of my life I have been underwater. Yes, I worked and lived inside submarines. Both in the Mediterranean Sea, but also some anti-piracy missions in the Indian Ocean. Movie stuff.
And that was my comfort zone. It might make you smile, but military life was my comfort zone. Rules, hierarchies, procedures, full focus on work. Absolute concentration, there was no space to insert many other things into thoughts and actions. It could happen you spent a whole month in the open sea, or rather immersed in the open sea, in the company of the same people. And I can assure you it is not easy. It takes a lot of preparation, logistics and technique yes, but also psychological and relational skills. It is like living in the same gym, you know? Body and mind adapt to careful actions and reactions within those specific contexts. It is a kind of existential transformation.
And in that setting, which all of you can perhaps imagine as uncomfortable, I was totally at ease. Procedures, objectives, organization: making sure that everything fitted, that was my greatest satisfaction.
And the satisfaction became enormous thinking of me, a child, who dreamed of the sea in my small village in the province of Matera. I told my grandmother Rosa that I wanted to spend my life at sea: she smiled, but I understood it from the smirk on her lips, that she didn't believe in it too much.
But then I took that track, very straight and with a specific goal... life at sea.
And so I moved from Basilicata to Livorno, to the Academy of the Italian Navy ... Degree in Maritime Sciences, then specialization in submarines, and then absolute concentration on work, the very long periods at sea... it is somewhat unjust to summarize years of life, of commitment, effort, enthusiasm and frustration in a few seconds.
And all this path leads me, around the age of 30, to become second-in-command. In short, after the submarine commander, there was me. And if I had followed that career track, straight and determined, the path to command would have been well laid out.
But then you arrive at 30, the nights beneath the waves also make your thoughts fluctuate, to move, you wonder what's out there... You are not disappointed, you are happy, this was your dream and this is the world where you wanted to spend your time in. But the question of meaning emerges like an iceberg from the ocean: could I be doing something different?
You look inside yourself, initially shyly, you think about being abroad, of the still somewhat nebulous desire to work in a large company, the thought of putting yourself to test in the tech industry... in short, life had followed thus far a precise track, strongly willed and with a clear destination. But in life there are exchanges. Trains may change tracks. It takes courage. It takes discussion. Talking with others, hearing about other possibilities, expanding the spectrum of potentialities in the field of hypotheses.
Then you get to a point where that little flame of doubt and unresolved questions you had inside flares up. And you can't hold it back. Even if the world is in a moment of stagnation. Even if a pandemic has just broken out and frightens and paralyzes everything. The urgency to change, to take that turning point becomes your destiny.
March 10, 2020. Lockdown has just started. Do you remember? On that day I delivered my official letter of resignation from the Navy.
Yes, it took courage. Courage to

ALESSANDRO CRISTIANO
Senior Strategic Supply Chain Manager at Amazon, alumnus MBA SDA Bocconi School of Management

take a step into the unknown. Unknown yes, but remember who I was. An organizer, a problem solver, one who has learned to work calmly and with a clear head even in the most intricate situations. And clarity told me to take a break from my daily occupations to acquire new tools and design a new future.

Let's get to today, April 2022. My name is Alessandro, I work in Madrid and I am a supply chain manager for Amazon.

Man, how much life has changed. In just two years. Yes, my turning point was three-dimensional: I changed industry, I changed country, I changed my function.

And in between that, there was the Bocconi Master. Reading, studying and comparing myself to others I understood that this was the right step to take to give shape to the unknown: there you meet many people, you see people who have taken very different paths, you make a decisive leap in your life and career, where everyone wants to get back in the game and redesign themselves.

I breathed new air, I added depth to my gaze, I was able to see myself from the outside.

And now my transition is complete. All the question marks have disappeared. I have a new comfort zone, composed of Spain and a company in which difference is a very important value, with a very strong team made up of many diverse people. I go to the office every day happy and ready to face operational challenges in which I immerse myself completely. Almost like before, when I was diving into the seas.

And to grandma Rosa, who said to me, "But who's forcing you to do it? Stay in uniform, you look so good," today I can say: grandma, I found my new uniform. At the office.

In Madrid I feel so good that sometimes it's like I can see the sea... and that's a turning point! ■

JHONATAN ABD EL MALEK
From prison to commitment in the third sector

From drug dealing to a business degree at Bocconi thanks to the University's project, the parable of a young man who had the strength to take his life back in control

by Lorenzo De Belli @

Freedom ... I always think about what this word means.

Listen to yourselves carefully. Yes, I am talking to you.

Because everything starts from there: from our thoughts, in the form of words, in our mind. And thoughts change constantly, if you notice, over the course of your lives. Several times just in the course of days...

And think how much they can change lives, like mine, in which days change, and changed in a revolutionary way within a few years.

I'm putting in a lot of words and concepts, I'm too emotionally involved, but don't worry. It is part of me. Now my managerial mind comes out and we are going to rearrange all the bits. Everyone in their seats. Relax.

My name is Johnny, I am 26 years old, I am an educator. I work for the Kairòs community, where teenagers and young adults with a criminal record are welcomed. Bad stuff, but I've done far worse, so I'm not impressed. And do you

THE STORIES TOLD TO THE CORRIERE DELLA SERA

JHONATAN ABD EL MALEK
Third sector operator, alumnus Bocconi University

know what I am telling you? I feel really free in being able to help various guys who had borderline experiences, helping them escape certain mental patterns that are rooted in their heads and affect their actions.
They are schemes that do not make you free... and oh do I understand them. Why dealing, having a lot of money, feeling powerful, be treated like a cool guy when you enter the clubs, have big cars, be observed with gusto by the girls and a whole community that looks at you as somebody who made it... Well, it you makes you fantasize about being free! And I don't need to be told about it by the guys I oversee. I have experienced all that.
Let's start with the small pieces that I put in order.
My name is Johnny, I'm 26, and just over 10 years ago ...
- Wow how time goes by, I'm no longer a kid, now I'll make you feel how I matured.
I was arrested after being caught with a large amount of cocaine, and sentenced to 12 years in prison. Now I'm not going to tell you about the 4 months spent sleeping on a cot in the Vigevano prison, the odyssey of the 15-hour night transfer to the Udine prison, the periods in which the next youngest person in jail was 40 years old, when I spent weeks without being able to speak to anyone in Italian, about the search for alibis, justifications, the psychological abyss...
Exactly, I don't want to talk about it, even if I told you a little about it. It is a rhetorical figure, it's called preterition, Francesco Petrarca also employed it, can't I use it, too? Yes, it might surprise you but also Economics and Management graduates know how to use rhetorical figures ... and also former inmates, haha!
But I'm digressing ... I was telling you about prison, about the cold, about when you lack air, about when you don't even have a thought to hold onto.
But then the TURNAROUNDS do really arrive. They are possible. Gigantic, long, complex, incredible things happen if you think about it in hindsight... but in reality, it takes little to activate them, after all.
My name is Johnny, I am 26 years old, I am an educator. I messed up a lot as when I was younger and this got me in jail. It was very hard. But I made it out of it. I got out of it the day I realized that the only thing of value is time. I couldn't waste time anymore. Many days, inside San Vittore, seemed gray, motionless, useless. But it is up to each of us to fill the gray settings of our lives with colors. Paint is everywhere.
And it's crazy to think that my salvation, my freedom, have become books. It almost makes me laugh to think that my experience of recovery and rebirth is the one that thousands of young students regard as the closest thing to forced labor... It's crazy how different the world can be depending on the point of view from which we observe it. Is it not true?
My story has something fairytale-like about it. The super baddie that turns out good. And often, in fairy tales, the transformation occurs thanks to a magic

Interviewed by the deputy editor of the newspaper, Daniele Manca, the alumni and companies leading the change told their stories on video in 11 weekly appointments and two special live broadcasts, for the launch and closing event of the initiative

Matteo Del Fante
CEO and General Manager of Poste Italiane and protagonist of the launch event
Degree in political economy, Bocconi University
The turning point: innovating and transforming a company with 160 years of history
Dialogues with Giuseppe Soda, Dean of SDA Bocconi

helper, the one that helps transform the villain into a good hero. Pinocchio's Blue Fairy, remember that?

In my fairy tale, I've had plenty of magic helpers. Many teachers who have helped me in every way to evolve as a student and as a person... especially Laura. And also many volunteers, people who really convey to you all the sense of humanity there can be in the world. And the volunteer who led me by the hand is called Ilaria. It was she who saw something good in me. It was her who believed in me. She was the one who spurred me on. The one who listened to me. The one that was there for me.

And it is by her that I am inspired when I carry out my work as an educator: you must not act in the place of the young person in difficulty, you must be there to welcome him, make him feel accepted, give him your hand, and when he falls to the ground ...

The same hand that I felt turned towards me when I did my studies, in prison, until I graduated: 99/100 in Social Sciences, not bad, mind you... and then the gates of the University open for me. Me, the former drug dealer. University?! Think about it!

Me becoming a model student! Me who a few years earlier had been defined as a "person with a well-defined criminal structure, now fully assimilated into his personality"... who knows, maybe a criminal structure can be transformed into a nerd structure?

Oh yes, you should have seen the string of votes of 29 and 30 that I started to accumulate. And not at some easy university for stragglers... at Bocconi, oh! Bocconi University of Milan. Yes, Ilaria persuaded me to enter here thanks to a scholarship. And after some doubts and thoughts I realized it was the right thing. Even if I dreamed of doing Educational Science and here I was doing Management instead. But it doesn't compare. I mean, a Bocconi graduate!

What an adventure to get to graduation. Getting to know a lot of very strong teachers, very good guys, very nice girls ... What an adventure to live!

Which wasn't that easy: I was doing 12 hours as a student and 12 hours as a prisoner... Sometimes I'd be studying, at night inside the Opera prison, which aesthetically is not exactly like the new Bocconi Campus, haha. And my student buddies didn't know that I was an inmate. They still hardly believe it today. Some are still in shock after reading my story reported by the Corriere.

Well, I confess: I was ashamed. I couldn't talk about prison. I was Johnny, the nice one, the smiling one, the good one, the one you could always count on, the one who made you discover volunteer experiences. That's who I wanted to be.

And to be like this I had to tell some baloney: like the fact that I didn't have a smartphone because I had had problems with gambling addiction and therefore it was forbidden for me... ahha, what an imagination!

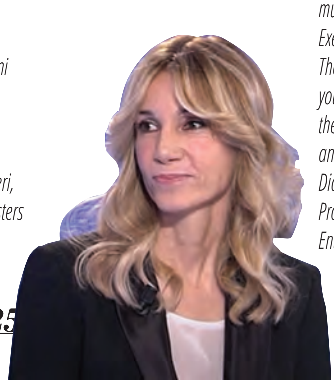
And all this I'm telling, it was I who did it. With the initial push that started from within, when I realized that all that money I was handling had no value, that I felt omnipotent but in reality I was nothing. That the only resource that has real value is called time. When you understand it and understand how you want to exploit it, then, and only then, you are free.

Come on, I'll tell you one last time so you will remember me.

My name is Johnny, I am 26 years old, I am engaged to Emanuela. A beautiful story with her, eh. But I don't want to go off topic. In life I am an educator. I won't do it for life. It is too exhausting ... but I could continue to work in the education sector perhaps with a managerial role. I have a degree from Bocconi, just saying... or maybe I'll go into something else. Maybe another turning point will come. Inside I feel the freedom to brave it. This is the real breakthrough.

And I'm not afraid. I've been through worse... trust me.

Isabella Castiglioni
Cofounder and Scientific Advisor of Deep Trace Technologies
Executive MBA, SDA Bocconi
The turning point: from university researcher to entrepreneur
Dialogues with Enzo Baglieri, Associate Dean of the Masters Division of SDA Bocconi



Andrea Gottfried
Founder of Fuori Opera and musical director
Executive MBA, SDA Bocconi
The turning point: reinventing yourself as a manager and then a startupper starting off as an orchestra conductor
Dialogues with Mikkel Draebye, Professor of Practice in Entrepreneurship & Family

Lorenzo Albini
Owner and Managing Director of Albini&Pitigliani
MBA, SDA Bocconi
The turning point: from aspiring rock star philosopher to leading the family business
Dialogues with Giovanni Tomasi, Associate Professor of Practice of Management Control Systems

LEGGI L'ARTICOLO IN ITALIANO

TITTI POSTIGLIONE
From volcanologist on Mount Vesuvius to managing national emergencies

Today she is deputy head of the Civil Protection Department, but her passion was scientific research. Then, thanks in part to SDA Bocconi's Executive Master in Management of Public Administrations (EMMAP), she decided to become a civil servant

by Lorenzo De Belli @

Change the point of view. Maintain an open mind to allow yourself to be surprised.

Yes, if you think about it, the possibilities of a life are so many and varied that it is impossible to predict them precisely, if you remain seated without daring a little. You have to go out, talk to each other, discuss with others. You certainly change, inside and out, while still managing to remain true to yourself.

Allow me, now, to tell you a little about myself. My name is Immacolata Postiglione, but for everyone, even in emails, I'm Titti. My life is inextricably linked to Civil Protection, which I met in 1999, 23 years ago. If I think back when I was a girl, I certainly can't say that I knew what the Italian Civil Protection was. At university I studied Geology, I specialized in Volcanology and I was so passionate about the field that I dreamed of becoming a scholar, a researcher totally devoted to my Vesuvius, that giant of my land - yes, I'm from Salerno - who has been asleep for centuries, but not many, eh.

I was waiting to discuss my doctoral thesis, one of those periods as a student when you can still afford to have free time, when you can even forget about your cell phone... little things that have become rarer over the years. Then a friend tells me: "Do you know that there is a course for Civil Protection Technician in Fabriano? Why don't you go there? It will be something that has to do with the study of the territory, of emergency risk. And you are one who's oriented towards understanding how you can help those in difficulty."

And I listen to him. Listening to others often led me to choose quickly at a crossroads. Even the choice of Geology started from a suggestion, I wanted to be an archaeologist, but then a student of Geology galvanized me by telling me how exciting earth science was... and the words of others sometimes help you broaden horizons and look inside yourself more clearly.

So this is 1998. I throw myself in. And I go to Fabriano. To this course for Civil Protection Technician. I meet incredible people. With crazy stories.

Naomi Kohashi
CEO & Cofounder of Eligo
Executive MBA, SDA Bocconi
The turning point: studying to develop your own startup
Dialogues with Marco Tortoriello, professor of Competitive strategy

Fabrizio Rutschmann
Chief HR Officer, Prysmian Group
Prysmian Group Academy, SDA Bocconi
The turning point: making thirty thousand employees into one body with targeted training
Dialogues with Markus Venzin, professor of corporate entrepreneurship

Giuseppe Addezio
Chief HR and Organization Officer of Ferrero
Ferrero MIM (Master in International Management)
The turning point: training to accompany a large company into the third millennium
Dialogues with Giuseppe Soda, Dean of SDA Bocconi

A whole new continent opens up on the planet of my imagination. The previous year there had been the earthquake in Umbria and the Marches. In those places I could have done my part. I, the apprentice researcher who studied the Vesuvius, could finally have my say, start making available to others what I had studied, I could help people in difficulty. I could also start writing my own story, which who knows maybe one day I could tell.

Today I have so many stories to tell: in 2008, after a few years as a precarious worker, I became head of SALA ITALIA, the national operations room of Italian Civil Protection. At the time it was said I was the first European woman to fill a position like that... I personally had to deal with the aftermath of the 2009 L'Aquila earthquake, then I was general manager of the emergency office just when there was the other dramatic earthquake in Central Italy in 2016. Now, working with the Head of Department, I am at the forefront of aid to Ukraine and people fleeing the war: in short, I am not going to bore you with the long list of events and emergencies, but I can tell you I never had the opportunity to get bored.

And I probably wouldn't have gotten bored studying Vesuvius either, you know, but my vocation would have led me to do something else anyway. I'm sure of that.

How beautiful the concept of vocation is. It is a calling, a calling that we feel in our bones, but it is a flexible call, which is molded and changes shape through the many experiences that life throws at us. This is what I try to teach the young people I am dealing with now.

Anna Juricic
Corporate and executive Coach PCC-ICF
Executive Master in Management of International Organizations (EMMIO), SDA Bocconi
The turning point: from flight hostess to corporate coach
Dialogues with Greta Nasi, director of EMMIO

Umberto Barbieri
Project Manager
Executive MBA, SDA Bocconi
The turning point: when a master's degree helps put life back in perspective
Dialogues with Rossella Cappetta, Associate Dean for Open programs at SDA Bocconi

Paola Scapoli
CEO of Biochimica spa
Open Education, SDA Bocconi
The turning point: learning to take the reins of your company
Dialogues with Claudia Tamarowski, professor of corporate finance

TITTI POSTIGLIONE
Deputy head of the Civil Protection Department, alumna Emmap, SDA Bocconi School of Management

I, if only for the fact that I am a few years older than you, can guide you, indeed accompany you. But I cannot be a replacement for you. Make your own mistakes. Build the road ahead of you. It will be different from the one I did and the one I would do. But that's only right. What I can do for you is to help you enrich your gaze by sharing many pieces of my experience...

To prepare you to be open or open to turning points.

My name is Titti Postiglione, I am Deputy Head of the Civil Protection Department. And I'm proud of it.

I have been working in Civil Protection for over 20 years now. It's my life. But even the life we have chosen for ourselves needs continuous enrichment, stimuli and new observation angles. At a certain point in my beautiful journey, I admitted to myself that I needed to take a breath and try to experience work differently. So from 2017 to 2021 I dedicated my time to the Universal Civil Service... focusing on all those young people who dedicate a portion of their lives to volunteering while they are preparing to enter the world of adulthood. But even there, I couldn't avoid dealing with emergency, because I had to manage this gigantic service at the very critical moment of the pandemic, haha ... but everything enriches, strengthens, structures you.

For some months now I have returned to Civil Protection equipped with new tools.

Many of the tools for living and working have entered my technical endowment thanks to the Master I did here at SDA Bocconi in 2015. Yes, I have a busy life. But the time of a lifetime is so precious that it must bear fruit to the fullest.

And here too, as you might now expect, the Master program was recommended to me by a friend. Roberto told me: "Do this Master in Management of Public Administrations, it will be essential for your growth".

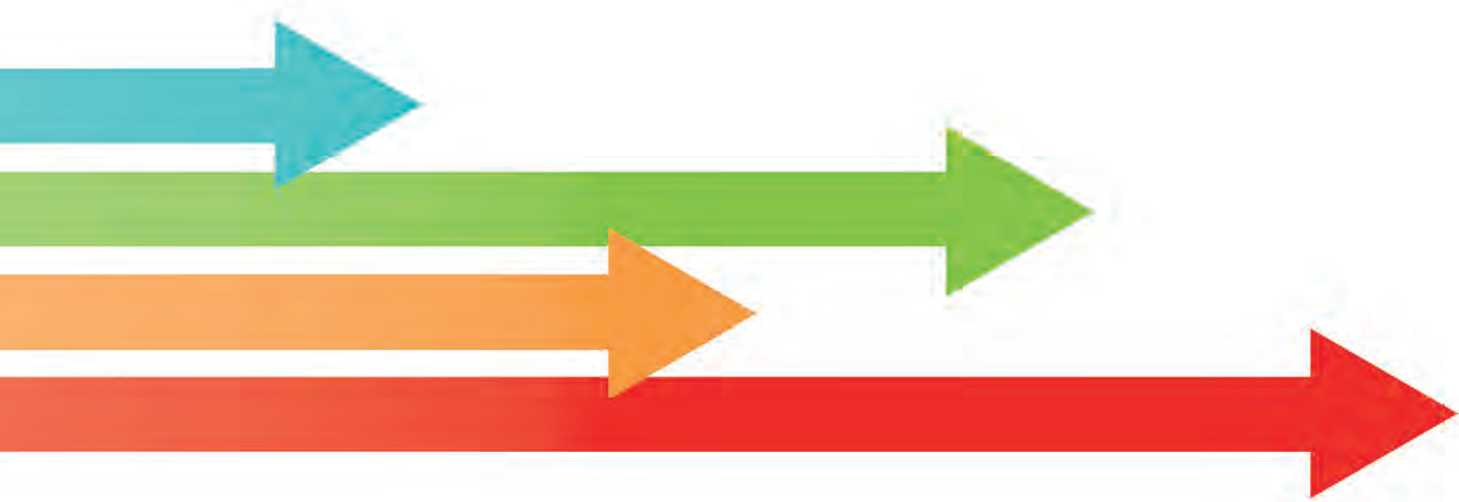
He was right. Never as in that period have I realized how my actions needed an external assessment. So many decisions I made with gut instinct, so many procedures defined out of common sense, could find a systematization. I was born a scientist, a geologist, I realized how much also the social sciences are real sciences, with theories, demonstrations, rules. And then at the Master you meet so many new and surprising people, you embrace many personal views that you will carry around for your whole life... it is truly a moment of self-observation, looking at your life from a new point of view.

To young people today I say: the horizons are vast, the Earth is big and wonderful, let's keep our gaze as open and deep as possible.

I did so, by shifting from potential archeologist to geologist, from aspiring scholar of the Vesuvius to passionate practitioner of civil protection, until I became a young official of the presidency of the council of ministers, then a manager, a director with many responsibilities also at the international level.

But I'm still the same Titti who when she was 18 imagined her future on the slopes of Vesuvius, I assure you. A vocation must be built, shaped and strengthened ... then oh it takes a lot of determination, energy, passion and a little luck. My greatest fortune rhymes with trust, the trust that expert and enlightened people have offered me along the way... the same trust that today I try to transmit to young people. A trust which is not blind, but open to as many different standpoints as possible.

Look ahead, and then you can trust. This is the turning point. ■



Alfredo Perna
Amazon site leader
MBA, SDA Bocconi
The turning point: from the Army to the management of a multinational company
dialogues with Gabriele Troilo, professor of Marketing

Javier Zanetti
Vice President of Inter Milan
Tailored one-to-one training, SDA Bocconi
The turning point: from football champion to manager of his club
dialogues with Dino Ruta, Professor of Practice of Leadership & Sport Management

Bernadette Bevacqua
President Henkel Italy & General Manager at Henkel Beauty Care, among the protagonists of the closing event
Bachelor of Business Administration, Bocconi University
The turning point: reorganizing the company to develop it

The day of the I

Faced with the global phenomenon of the decrease in the listing of companies, new alternative forms have been introduced, including, for example, SPACs. However, probably only well capitalized companies like unicorns and cool kids, will be able to use this form of direct listing

by Maria Lucia Passador @

THE PAPER

In Vogue Again: The Re-Rise of SPACs in the IPO market, by Maria Lucia Passador

LEGGI L'ARTICOLO IN ITALIANO

P-NOs

by Maria Lucia Passador @

THE BOOK

The SPAC (Special Purpose Acquisition Company), is a listed investment vehicle, the raising of which on the capital market is intended for one or more investment/integration transactions in targetn companies within a pre-determined time frame. From 2011 to 2018, SPACs have contributed to the development of Italian financial markets, helping to develop a more modern financial culture, Gigante and Conso explain in *Le Spac in Italia* (Egea, 2019, 104 pp., €15, in Italian).

Back in June 2019, a notable roundtable organized by the European Corporate Governance Institute focused on the remarkable downsizing of the global corporate listing phenomenon and investigated its causes. On that occasion, René Stulz icastically defined the dramatic decrease (halving) of listed companies in the United States in the past two decades as an "eclipse" of public companies, occurring not so much because of the increasing burdens imposed by regulations, but as a result of the considerable increase in intangible assets; the institutionalization of private equity; the reduced liquidity advantage now granted by the stock market; the prohibition currently imposed by the internal regulations of institutional investors to participate in small listed companies with low liquidity.

Given this anything but heartening scenario, alternative forms (IP-NOs) have gradually been introduced, including the business combinations of SPACs (addressed in my forthcoming paper in Brooklyn Journal of Corporate, Financial & Commercial Law, 2022) and direct listing (c. d. direct listing or direct public offering or direct placement, covered in the forthcoming book chapter entitled Finding an Alternative to IPOs: SPACs and Direct Listing, in Research Handbook on Global Capital Markets Law, Iain MacNeil and Iris H-Y Chiu (eds.), Edward Elgar Publishing Ltd, 2022). In the case of SPACs, it is highly likely that their use will be dramatically downscaled if the SEC's proposal dated April 30, 2020 is approved, while direct listing will possibly be given greater prominence and companies (or, more properly, their initial investors and employees) will not interface with brokers and investment banks to underwrite the share issue, but will directly sell existing and outstanding shares. Among its advantages we can recall the uniformity of information among sellers and buyers, the possibility of identifying the price according to the market trend and the liquidity ensured to shareholders; on the contrary, there are no warranties for investors in the long term, nor is there any possibility to use greenshoe or over-allotment options to stabilize prices in the aftermath of an IPO, allowing the underwriter the right to sell more shares than initially planned should demand be particularly strong. It may sound like a panacea for companies and the market, however, while an IPO would allow even smaller companies whose brands are less widely known to the public to reach a wide network of investors, only a carefully selected group of companies can enjoy a direct listing (which has so far involved companies operating in the food and biotech sectors, but also Spotify and Slack Technologies). It is therefore likely that unicorns and cool kids, i.e. well-capitalized companies with a large and diverse shareholder base that can provide sufficient liquidity, a viable business model and a strongly recognized brand, will benefit from it. ■

MARIA LUCIA PASSADOR
Academic Fellow of Private and business law, Bocconi University

People & technology: how they determine the value of a company

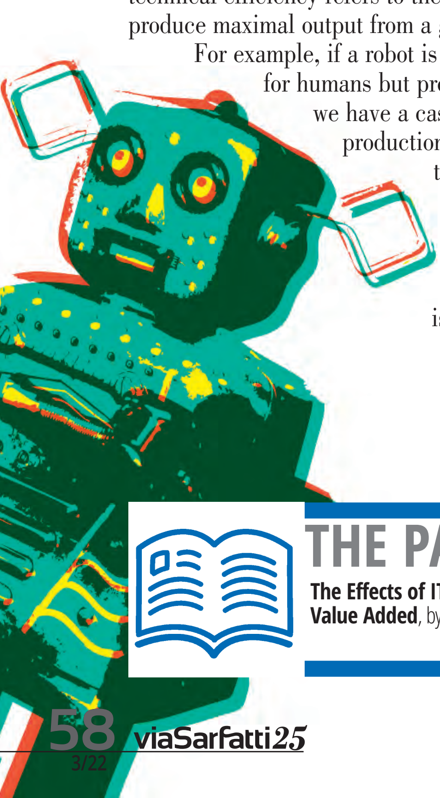
While investments in software and skilled labor shift a company's production frontier, investments in hardware determine technical efficiency and are not enterprise-specific

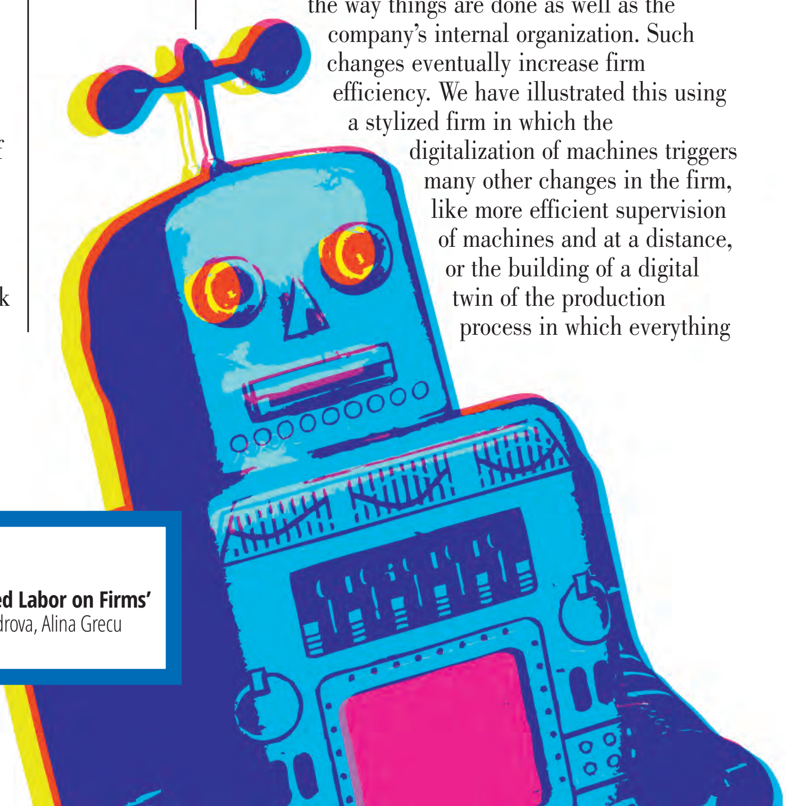
by Torben Pedersen @

Many studies have examined the influence of investments in IT and skilled labor on firm performance. These effects can occur through two distinct channels-the production frontier and technical efficiency. The production function expresses the relationship between the quantity of output and the different quantities of inputs used in the production process. It depends on the state of technology; such that adopting new technologies may shift the frontier upwards due to transformations in the production process that allow for a greater or similar output to be produced with fewer inputs. We denote this channel as the production frontier. In contrast, technical efficiency refers to the ability of firms to produce maximal output from a given set of inputs. For example, if a robot is used as a substitute for humans but process is not changed, we have a case of changes in the production frontier. However, if the robot collaborates with humans (i.e., "cobots") and, thereby, alters the process, then the task is conducted more efficiently by using the mutual strengths of the robot and the humans, which affects technical efficiency. This distinction leads to a central question: Do IT investments and skilled labor mainly act as input factors (i.e., the effect occurs through the production frontier), or as enablers of more efficient utilization of the existing input factors (i.e., the effect occurs through improved technical efficiency)?

TORBEN PEDERSEN
Full Professor of International business and management, Bocconi University

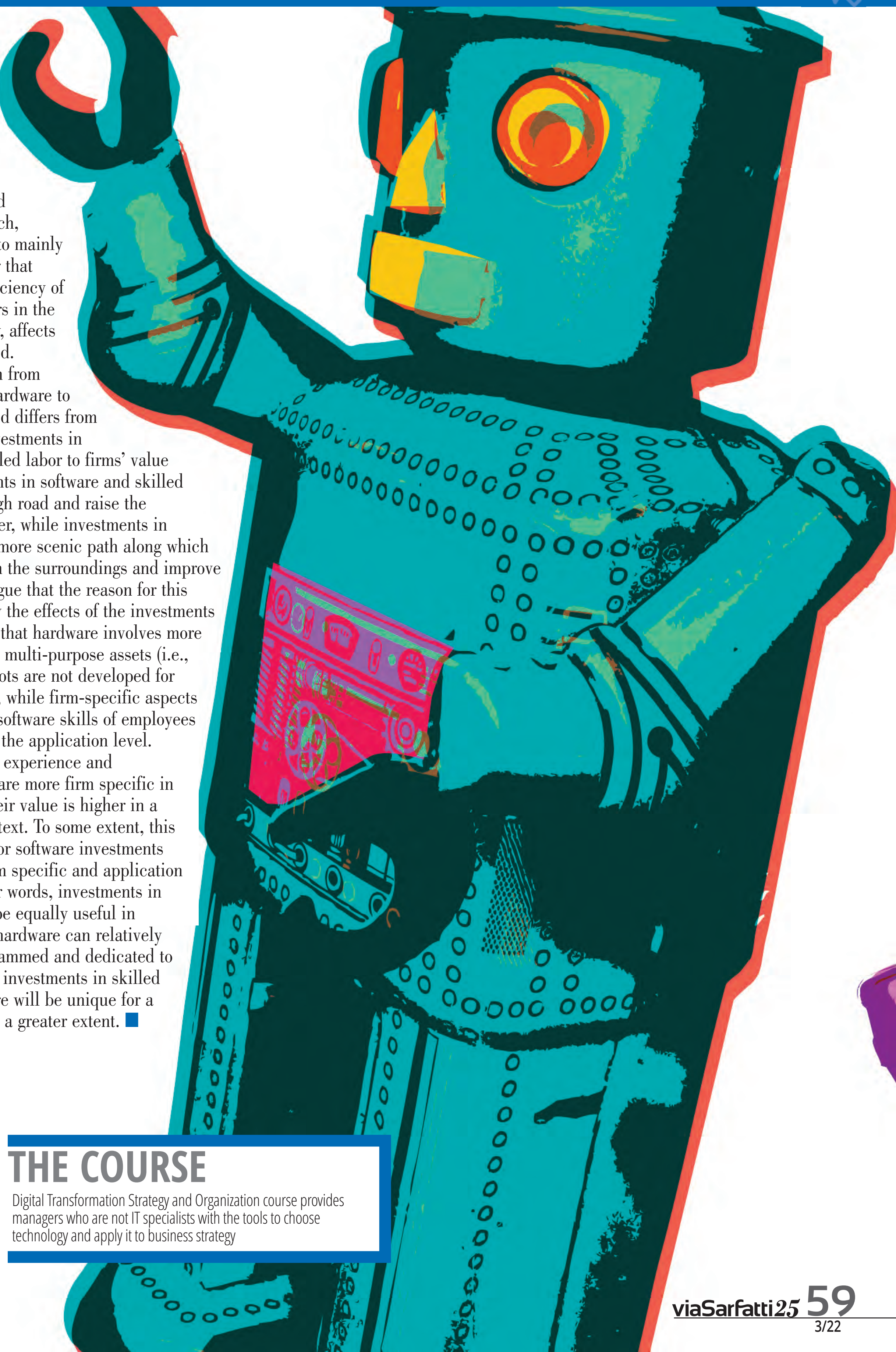
Our results show that hardware is a more general-purpose technology that works best in combination with other input factors, like skilled labor. Investments in hardware, such as improvements in the platform or the infrastructure, may create opportunities to change the way things are done as well as the company's internal organization. Such changes eventually increase firm efficiency. We have illustrated this using a stylized firm in which the digitalization of machines triggers many other changes in the firm, like more efficient supervision of machines and at a distance, or the building of a digital twin of the production process in which everything





THE PAPER

The Effects of IT Investments and Skilled Labor on Firms' Value Added, by Torben Pedersen, Anna Scedrova, Alina Grecu



can be traced and optimized. As such, hardware seems to mainly act as a catalyzer that increases the efficiency of other input factors in the firm and, thereby, affects firms' value added.
As such, the path from investments in hardware to firms' value added differs from the path from investments in software and skilled labor to firms' value added. Investments in software and skilled labor take the high road and raise the production frontier, while investments in hardware take a more scenic path along which they interact with the surroundings and improve efficiency. We argue that the reason for this difference in how the effects of the investments are channeled is that hardware involves more standardized and multi-purpose assets (i.e., computers or robots are not developed for individual firms), while firm-specific aspects are found in the software skills of employees and are closer to the application level.
Skilled labor has experience and capabilities that are more firm specific in the sense that their value is higher in a specific firm context. To some extent, this is also the case for software investments that are more firm specific and application oriented. In other words, investments in hardware might be equally useful in another firm, as hardware can relatively easily be reprogrammed and dedicated to other uses, while investments in skilled labor and software will be unique for a particular firm to a greater extent. ■

THE COURSE

Digital Transformation Strategy and Organization course provides managers who are not IT specialists with the tools to choose technology and apply it to business strategy by Giovanni Burro @

«I want a lifetime post!" says comedian Checco Zalone in a movie. News are full of anecdotes about how much Italians yearn for public permanent employment. Does getting a public sector job make them happier than someone who is in private employment? With Alessandro Bucciol (University of Verona), we try to answer this question in our paper *Is There a Happiness Premium for Working in the Public Sector? Evidence from Italy*, recently published in the *Journal of Behavioral and Experimental Economics*.

The short answer is yes, but only for some. In our work, we analyze responses to the Bank of Italy's "Survey on Household Income and Wealth" from 2004 to 2016. As is common in the vast literature on economics and happiness, our measure of interest is stated happiness, in a scale ranging from 0 to 10. The question reads "Considering all the aspects of your life, how happy would you say you are?". In our work, we relate the subjective well-being of Italian employees to their economic conditions and their status as public or private employees.

GIOVANNI BURRO
Research Fellow
at Department of Finance,
Bocconi University

We find evidence that better economic conditions lead to greater happiness. Public employment also brings greater happiness than private employment, but not for everyone! Only most economically disadvantaged employees report this advantage. Employees in medium or high economic conditions express similar happiness, regardless of the nature of their employment. To give an idea of the importance of public employment, workers with a wealth of around €20,000 and public employment express similar levels of happiness with respect to workers employed in the private sector with a wealth of around €162,000. We surmise two reasons for this. First, the social prestige and job satisfaction given by public employment may be more relevant for workers who do not enjoy economic status. Second, the stability given by public employment may be more important for workers who would have greater difficulty in finding new employment in the event of dismissal, given that worse economic conditions are typically associated with less skilled jobs. In our data we find clues that suggest these two conclusions are reasonable. In particular, we observe that public workers with low economic

The myth of the

Better economic conditions are the first factor in happiness and not the type of employment. The public sector,

LEGGI L'ARTICOLO IN ITALIANO

THE PAPER

Is There a Happiness Premium for Working in the Public Sector? Evidence from Italy,
by Alessandro Bucciol and Giovanni Burro

conditions have spent a greater part of their working life in their current jobs, compared to private employees with low economic conditions. We do not observe the same difference for public and private workers with medium or high economic conditions. This suggests that public workers in low economic conditions exploit the greater stability given by public employment relatively more strongly than private workers. In some editions of the survey we also find other clues that suggest greater perceived job stability and satisfaction of public workers compared to private workers, but still only for individuals in disadvantaged economic conditions. Finally, we find no differences in the happiness afforded by public employment between geographical areas or over time.

In conclusion, Italians love having a permanent job, but only if they live in disadvantaged economic conditions. In these conditions, the job stability and job satisfaction given by the public employment are more marked. This suggests a rational mechanism for the widespread propensity towards public employment, as opposed to purely psychological or emotional mechanisms being at work. ■

permanent job

due to its stability and social prestige, is preferred only by low-income workers, as shown by a Bocconi study

That vast netwo Bocconi beyond

Stefano Caselli, Bocconi Dean for Internationa maintenance of partnerships with other intern opportunities for students' exchange program

by Emanuele Elli @

For almost half a century, Bocconi students have exchanged their classrooms with peers from other universities around the world. Since 1974, the opportunity to spend a period of study abroad has touched the lives of an increasing number of young people growing in parallel with the growth of the university's international network and reputation. Since 2012, Stefano Caselli, a professor of finance, has been Dean for International Affairs, presiding over this strategic activity for the expansion of the university but above all for the education of its students.

➜ *What objectives need to be pursued when working on the internationalization of a university?*

International affairs are made of many pillars. The largest and most solid are alliances with other universities which allow Bocconi to be visible, have our students spend periods of study abroad and, not least, have young people coming to Milano from all over the world: Princeton, from Stern in New York, Singapore, etc. Ten years ago the number of exchange agreements was less than 200, today there are 283 existing agreements which cover nearly all the best universities in the world. A result achieved thanks to Bocconi's choice of being present, often from the start as founding member, in the main international academic networks, like CEMS which has more than 30 years of history or, more recently, CIVICA, which is an expression of the European Universities Project launched by European Commission. Starting from such a good premise, it wouldn't be hard for Bocconi to sign new agreements almost every day, but what we try to do here is always finding partners of equal or higher standing and, as mentioned, we've already got them. Rather, the challenge of the next few years will be to develop agreements that give international exposure to the new Bocconi degree programs that have been launched, from Computer Science to Artificial Intelligence, and rethink the concept of the international dimension in a much more complex world.

LEGGI L'ARTICOLO IN ITALIANO

rk that pushes d its borders

l Affairs, talks about the creation and ational universities which every year become s that bring the world to Milano and vice versa

➜ For those attending Bocconi, the international dimension is something almost taken for granted. Does this facilitate your task or does it raise the bar of expectations?

If this aspect is taken for granted by today's students, it means we did a great job with yesterday's students. In this context, however, you can never relax because, for example in an exchange program, everything must work perfectly and it is a job that requires daily maintenance and an impeccable organizational machine. It is true that the students who enroll here often already have international experiences, but regardless of this, today more than ever they are aware that being able to include a semester at a prestigious university or even a double degree in the curriculum, and we have 36 of them now, is a terrific game changer to improve their placement possibilities.

➜ The pandemic put a stop to all this for a while..

In reality, in the most difficult moment, that of the lockdown, we reacted in real time by further strengthening our relations with European universities. There was a network response in the most beautiful sense of the word: everyone opened their doors wide, the number of exchanges even increased, and at the same time we gave the green light to online experiences that are certainly less attractive than the traditional format, but which have allowed many students to attend a different academic environment and be able to include it in their curriculum. It was tiring for everyone, especially for young people, but we are past that moment and today we are back to nearly the same number of physical exchange programs as before the pandemic.

➜ Now, however, relations with Russia have had to be cut off..

Like all universities in Europe, we too had to suspend, with great regret, exchanges with historic partners such as the University of St. Petersburg. We did not have agreements in place with universities in Ukraine, but we are considering opening them now to allow Ukrainian students to spend a period of study here.

➜ Those who compile the rankings of universities give a lot of weight to internationalization as an evaluation parameter. How do you consider that kind of judgment?

As a finance scholar, I can say that rankings are like the prices of stock exchange securities: we can endlessly argue whether they are fair or not. Rankings are not the truth, that's for sure, but they are important indicators allowing international quality comparisons and a measure of collective effort of all components of a university, from research activity, to programs, to placement. If you are a Dean of International Affairs you must actually work as an "investor relator" and interact with those who make these rankings to explain exactly what is being done and how, valuing everyone's commitment. It is an aspect of my role that takes a lot of time and effort, but I have to say we have had excellent results in Financial Times and QS rankings.

➜ Is a student abroad already a likely brain drain for his/her home country?

I think it is reductive to see it like that. The market for higher education is global and it is physiological that, if we want to have excellent students who are then excellent professionals and, I would say, excellent citizens, we must push them towards an experience abroad. Only through this passage can they can come back enriched and contribute to making Italy more attractive. What becomes dangerous is if we only export and don't import talent in equal amount. A university and a country work well when the two flows are balanced, and this is what we see at Bocconi.

➜ What remains of the Bocconi identity as a value to be embedded in all these relationships?

In these ten years I have verified that there are some recurring aspects about Boconi that are perceived abroad and the first concerns the quality of our students, who always have performances among the best. This too is in some way an identity character which we must preserve by continuing to apply a rigorous selection at the stage of admission, based solely on a criterion of merit. Furthermore, as I often remind people, Bocconi was founded by an entrepreneur who wanted to give back to his community, and this DNA distinguishes us on the international scene by giving to our academic approach, and therefore also that of our students, the imprint of responsible entrepreneurship. Strong creativity, knowing how to always find a solution, attachment to the idea of independence, a sense of responsibility and duty are characteristics that recur. Finally, I would add the strong bond with Milan. Like all major universities, Bocconi has characteristics that are independent of where it is located, but its growth in recent years is undoubtedly closely linked to the international standing reached by the city. Compared to just ten years ago, Milan is much more visible on the world stage, plays as a protagonist on many fronts, and the city is a driving force for the entire social fabric. In fact, it has established a win-win relationship with our university. ■

STEFANO CASELLI An Economics graduate from the University of Genoa and a PhD in Financial Markets and Intermediaries at University of Siena, Stefano Caselli began his career as a Bocconi researcher in 2000, and became Associate Professor in 2002. He was appointed Full Professor of Economics of Financial Intermediaries in 2007 and Algebris Chair since 2019, but has always combined teaching and research with his commitment to institutional duties, in particular as Dean for International Affairs, a role he has held since 2012. "As a student I did not have the opportunity to take part in an international exchange program", recalls the Dean, "but I ovecompensated in the following years, by working, traveling and developing the spirit of being a citizen of the world. International activity fascinates me because it is always surprising, it allows relentless innovation, to deal with new challenges and look beyond. And I think it is ever more strategic for a university, but also for a country, like ours".

From CEMS to CIVICA to THEMIS, the alliances in which Bocconi University is an active participant, and which also take the form of exchanges, double degrees and joint activities

The strength t

by Tomaso Eridani and Davide Ripamonti @

CARLO ALTOMONTE

Promoting European education and values

Bocconi is one of the founding members of the CIVICA alliance which aims to build a truly European inter-university campus

From joint courses to summer schools, from research projects to conferences, the activities of the CIVICA alliance, of which Bocconi is a founding member, knows no bounds. All in the spirit of fostering European collaboration and values and a promoting a diverse and inclusive community reaching out to students, faculty and staff of member universities. CIVICA - The European University of Social Sciences was selected in 2019 by the European Commission as one of the pilot European Universities, funded under the Erasmus+ programme, to promote European values and identity, help build a European Education Area and enhance strategic partnerships in higher education and research. The 8 founding universities, Bocconi, Central European University, European University Institute, Hertie School, National University of Political Studies and Public Administration, Sciences Po, Stockholm School of Economics and London School of Economics and Political Sciences, have recently welcomed two new members , IE University and SGH Warsaw School of Economics. In these first three years, CIVICA has offered students, faculty and staff innovative opportunities in education, research and civic engagement. "The spirit is that of creating a common European academic corpus and defining a common high standard of education in the social sciences. Putting together all the best experiences and also experimenting by innovating, such as with joint courses," explains **Carlo Altomonte**, who is director of the CIVICA multicampus course and coordinator for the CIVICA work package on undergraduate initiatives. "It is a practical exercise in diversity – gathering all the best European experiences to promote development that, in line with European values, also bears in mind cohesion, diversity and sustainability." For students for example, there is the CIVICA Engage track, a bachelor experience with a focus on civic engagement, the European Week, a one-week education experience for bachelor students held at a different campus every year, the Future of Europe-Europeanship multicampus, a course taught jointly by professors from the various CIVICA universities looking at European policy challenges for 200 master's students, and the PhD Summer School. Then there are events such as the CIVICA Public Lectures Tours d'Europe, to help citizens' understanding of contemporary issues, and the PhD Panel Series. "The aim is to promote joint educational experiences and exchanges, to foster collaboration and networking with fellow European students and faculty. You learn from diversity and with common objectives everyone in the single universities in enriched by these experiences," says Altomonte.

The CIVICA Research project was also launched to deepen research collaborations across the network focusing on key challenges: such as Crises of Earth; Democracy in the 21st Century; Europe Revisited. ■

*CARLO ALTOMONTE
Associate Professor and Director of the CIVICA multicampus course, Bocconi*

MARIATERESA MAGGIOLINO

Themis, the international network for law students

Twelve high-profile law schools have formed an international alliance that issues a certificate in International and Business Law to participating students

Unity is strength, says a well-known adage. But for this to be true, each of the individual elements must be of proven value. That's the case with Themis , the network founded in 2006 by Bocconi University, ESADE Barcelona, Freie Universitaet Berlin and Université Est Créteil-Val de Marne Paris, which now counts 12 of the best schools of international law in the world. In addition to the four founders, the list is as follows: City University of Hong Kong, Maastricht University, Singapore Management University, Universitaet St. Gallen, Universidad Nova de Lisboa, National Taiwan

hat comes from being together

MASSIMO MAGNI

Schools and businesses united to train responsible managers

The CEMS MIM is a double degree that provides a strong theoretical and practical grounding. And it can count on a network of alumni in every part of the world

Over 30 years old, but certainly doesn't look it. The CEMS MIM (Master in International Management), founded in 1988 by Bocconi University, University of Cologne, Hec Paris and Esade Barcelona, was the first supranational Master program and still enjoys excellent health with a network of 34 universities scattered on all continents. "The first year takes place entirely in the students' own university," explains **Massimo Magni**, associate professor at the Department of Management and Technology and academic director for CEMS at Bocconi. "During the second, students spend a semester abroad in one of the partner universities. Upon completion, students obtain both the degree from their university and from CEMS MIM."

The program, for the current academic year, involves 1,348 students of almost 80 different nationalities, 65 of whom come from Bocconi after a stiff selection. But that's not all. CEMS is not just classroom lessons, but much more. "The network has 70 corporate partners, companies of primary importance at an international level, who organize ad hoc activities and various business projects," continues Magni, "managerial challenges that they have to face in reality and on which our students work as consultants." As the academic director points out, "direct contact with companies represents an additional opportunity for students to make themselves known, while for companies it is a fundamental element in the search for the most interesting talent."

And in fact, currently over 12 thousand CEMS alumni, of 85 different nationalities, occupy prominent positions in companies of various sectors in every part of the world. From the moment they join the program, students "will be held to the highest standards of ethical and social responsibility and professional integrity," Magni points out. "We want to train responsible managers." And international managers, since one of the requirements is that they know at least two languages in addition to their own.

"Summing up, we could say that CEMS MIM has three strengths," continues Massimo Magni. "The network, since it includes all schools of primary importance; the network of alumni, who are everywhere in the world in prestigious positions; and finally, the constant contact with companies, which makes this program excellent both in the theoretical parts learned in the classroom and from a practical point of view through the various business projects." ■

MASSIMO MAGNI
Associate Professor and Academic director for CEMS Bocconi

University, Victoria University of Wellington, and Vienna University of Economics and Business. Themis provides for selected students who participate in its program a certificate in International and Business Law. As **Mariateresa Maggiolino**, Director of the Law degree program at Bocconi, explains: "Themis is an exchange program with an added value: it combines the aspect of student exchange, that is, a semester of study abroad in one of the partner universities, with a meeting and discussion event that takes place once every year in a different university of the network, where students can freely express and discuss their legal views. The program also includes the completion of an international internship. And finally, there is the Themis certificate, a document acknowledged internationally." ■

MARIATERESA MAGGIOLINO
Associate Professor and Director of Law degree, Bocconi University

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 at Bocconi on business, economics, social sciences, law, and quantitative sciences.

by Fabio Todesco
and Weiwei Chen, Andrea Costa,
Sirio Legramanti, Giulia Sargiacomo @

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Sandra Fortini and Sonia Petrone, Decision Sciences

Opening the black box

SONIA PETRONE
Full Professor
of Statistics,
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SANDRA FORTINI
Associate Professor
of Stochastic,
Bocconi University

The recent hype about machine learning has been accompanied by some calls to caution from statisticians. In fact, machine learning algorithms are often described as "black boxes", meaning that the mechanism by which their output is obtained from the input is not transparent. Moreover, such output is typically returned without any quantification of the uncertainty about it. On the contrary, transparency and uncertainty quantification are among the flagship features of statistical procedures. However, machine learning has showcased some remarkable performances (especially on big, complex and streaming data) which cannot be overlooked.
Another difference among machine learning and statistics is that machine learning focuses on prediction, while statistics is typically more interested in inferring the parameters of the assumed probabilistic model. Actually, this is an incomplete picture of statistics. In fact, the predictive approach is shared by Bayesian statistics. In a recent paper (see below), **Sandra Fortini** and **Sonia Petrone**, both Professors at the Bocconi Department of Decision Sciences, employed Bayesian statistics to investigate the functioning of Newton's algorithm. The latter is a recursive procedure to classify streaming observations into different "populations" (e.g. pattern types, or signal sources), with no feedback about the correctness of previous classifications (in this sense, the classification task is said to be "unsupervised"). The success of this algorithm is due to the possibility of applying it recursively, "re-using" previous computations whenever a new observation is available. This is crucial for streaming data (data that are continuously generated). Before the work of Fortini and Petrone, it was not clear whether the efficient Newton's algorithm was an approximation of an exact (but more computationally expensive) rigorous Bayesian procedure.
"This line of research," says Petrone, "demonstrates that the Bayesian predictive approach is more than a philosophical choice. It can concretely help to shed light on algorithms whose functioning would otherwise remain obscure."

THE PAPER

Quasi-Bayes properties of a procedure for sequential learning in mixture models, by Sandra Fortini and Sonia Petrone

Qiaoni Shi, Marketing

Repeating the success of Netflix in the offline world

QIAONI SHI
Assistant Professor
of Marketing,
Bocconi University

Subscription services are dominating people's lives. The most notable platforms usually offer online services, but in some countries subscriptions are emerging for new product and service categories to be consumed offline. For instance, in the US, ClassPass offers subscribers access to a certain set of fitness structures, while MealPal offers a subscription for lunches at a certain number of restaurants.
Key to the success of these offline subscription platforms are: the presence of variety-seeking customers in the targeted

Myriam Mariani, Management and Tecnology

MYRIAM MARIANI
Full Professor of Applied economics, Bocconi University

How inventor parents perpetuate gender inequality

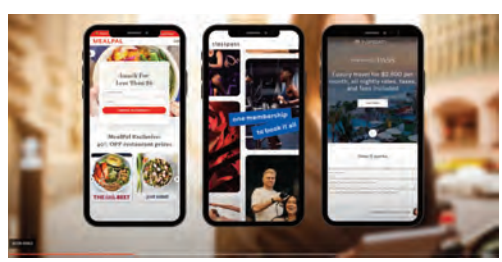
Past research has shown that being born in families with, for example, below-average education and income does have a negative correlation with becoming an inventor or a scientist. A paper by **Myriam Mariani** of Bocconi's Department of Management and Technology co-authored with **Karin Hoisl** (University of Mannheim, Germany) and **Hans Christian Kongsted** (Copenhagen Business School) goes further and explores what keeps women inventors out of a chance to express their potential. A girl born to an inventor parent will be 13 times more likely to become an inventor herself than the average girl, but this advantage disappears completely if the second child within the family is a boy.
The waste of scientific talent which goes unexploited simply because of a lack of exposure to relevant cultural stimuli early on in life is typified by the nickname "lost Einsteins" .
Professor Mariani and her colleagues think this is more a case of "lost Marie Curies", since from the outset females are less represented in STEM disciplines which are a prerequisite of becoming an inventor. Puzzlingly, women among inventors, defined as people who have applied for a patent, are even rarer than their quota of STEM graduates would suggest.
Trying to explain this fact, the authors have investigated the role of inventor parents on their sons' and daughters' chances of becoming inventors themselves. To do this, they turned to the impressive wealth of data available about Denmark residents.
The study finds that the extent to which inventorship (ie, the ability to become an inventor) is passed on to first-born daughters is practically zero if the second-born in the same family is a boy, but not if it is another girl. The data suggest inventor parents mean seven more inventor girls per thousand girls, which become a good 15 more per thousand girls when their younger sibling is also a girl. But the effect of having an inventor parent is zero if the second-born is a boy.

THE PAPER

Lost Marie Curies: Parental Impact on the Probability of Becoming an Inventor, by Karin Hoisl, Hans Christian Kongsted, Myriam Mariani

local market; recruiting vendors with a differentiated and only slightly overlapping offer; and alleviating price competition between platform and vendors, according to a recent paper by **Qiaoni Shi**, Assistant Professor at Bocconi University, Milan, and **Esther Gal-Or** (University of Pittsburgh).
Unlike online subscription platforms, such as Netflix, physical ones are influenced by the location. In fact, the paper shows that the first important factor to consider is the local market condition. The paper recommends entering markets where sellers are differentiated. In such markets, consumers can benefit from the added variety. Moreover, managers should also consider markets where competition between the vendors is relatively weak because in this case, the subscription contract is likely to attract new customers who are not active in the absence of the platform, allowing both parties to benefit from the surplus derived from platform customers.
Professor Shi also warns against lowering the quality of the product offered by sellers. "When a vendor offers lower quality to platform customers than the quality they offer to his own direct customers," she says, "the platform is forced to compete even more fiercely on prices. In the end, neither the platform nor the seller can profit from the situation."

VIDEO



Francesca Franco, Accounting

FRANCESCA FRANCO
Associate Professor of Accounting, Bocconi University

Deferred compensation may be a form of insider trading

Insider trading is heavily punished by the U.S. Security Exchange Commission. However, insiders sometimes find loopholes within the law to continue to buy or sell securities. According to U.S. federal securities law, specifically Rule 10b-5, insiders at public companies are prohibited from engaging in insider trading activities because of the breach of fiduciary duty that they have towards shareholders. Nonetheless, corporate officers and directors may engage in transactions that are exempt from company's insider-trading memos and Rule 10b-5. An interesting tool available to insiders is non-qualified deferred compensation plans, which are at the center of the forthcoming paper by Bocconi Professor **Francesca Franco**. When the executives decide to defer their annual cash compensation, they must agree with the firm about the proportion of the compensation to be deferred, the notional investment choice, the deferral transaction dates, and the forms and time of distribution. The most common forms of investment alternatives include stock indexes, treasury note rates, and the company's stock. The option to defer cash payment in company stock allows executives to convert part or all of their annual base salary and other cash pay into the company's deferred stock and this choice is deemed irrevocable. Hence, as a consequence of the peculiarities embedded in equity deferral compensation plans, Professor Franco and her co-author Professor **Oktay Urcan** (University of Illinois at Urbana-Champaign) investigate whether executives use equity deferrals to acquire their firms' stock when open-market purchase would violate Rule 10b-5, and whether executives profit from these transactions by adjusting the timing and content of corporate disclosures around their scheduled trades. The paper provides sound evidence that executives use these transactions as substitutes for open-market purchases of the company's stock. In particular, a significant fraction of the deferrals occurs during blackout windows (-47 to +2 trading days relative to quarterly earnings announcement dates, during which insiders are not permitted to trade company stocks).

THE PAPER

Executive Deferral Plans and Insider Trading,
by Francesca Franco, Oktay Urcan

Kerim Can Kavakli, Political Sciences

KERIM CAN KAVAKLI
Assistant Professor of Political science, Bocconi University

Family planning: the silence that might kill 27,000 people per year

Restricting US foreign aid for non-governmental organizations (NGOs) that provide information on or access to abortion-related services in developing countries may have harmful effects on maternal and child mortality and HIV incidence rates on the same scale as an ongoing civil conflict.
In a paper published on PNAS, **Kerim Can Kavakli** (Bocconi University, Milan) and **Valentina Rotondi** (SUPSI and University of Oxford) investigate the effects of the so-

Thomas Le Barbanchon, Economics

THOMAS LE BARBANCHON
Associate Professor
of Labour economics,
Bocconi University

Working while in school has long lasting effects on your human capital

A well-designed work-study program can boost human capital accumulation, with long-lasting, positive effects on participants' labor market outcomes, according to a study that analyzed "Yo Estudio y Trabajo" (YET), a program which provides students in Uruguay aged 16 to 20 with a first formal part-time work experience in state-owned companies for up to one year.

Thomas Le Barbanchon (Bocconi University, Milan), **Diego Ubfal** (World Bank), and **Federico Araya** (Uruguayan Ministry of Labor and Social Security) estimated that participants, two years after the program, had 6% higher wages and 8% higher earnings (factoring in both wages and a higher likelihood to be employed) than non-participants with the same characteristics.

The benefits did not come at the expense of either school enrollment (over the two years following the program, the enrollment rate of participants was 4 percentage points higher than among non-participants) or grades, which were not lower. The enrollment effect was stronger for disadvantaged students, probably meaning that they could save the earned money to finance their studies, and that the experience made them expect higher returns to education, motivating them to study longer.

The results suggest that the program's focus on work-related skills was a key mechanism for earnings impacts. Among the Big 5 personality traits, participation in the program significantly increased conscientiousness. It also improved work attitudes that are related to time management and flexibility. Furthermore, the human capital acquired through the work-experience channel was not sector specific but seems rather general. The scholars did not find evidence that earnings effects were concentrated in the sectors of the firms taking part in the program, or that they differed by program firm sector. "Working while in school is controversial", concluded Professor Le Barbanchon. "While some countries have promoted policies encouraging youth to study without working, others have designed programs that encourage youth to work while in school. Our results suggest the practice, when well-designed, can have positive effects."

THE PAPER

The Effects of Working While in School: Evidence from Employment Lotteries, by Thomas Le Barbanchon, Diego Ubfal, Federico Araya

called Mexico City Policy (MCP). Since its inception in 1985, the MCP withdraws US federal funding for NGOs that provide information on or access to abortion around the world. "MCP is enforced and rescinded along partisan lines. It is one of the first policies implemented or continued by every Republican president and lifted by every Democratic president, usually in the first week of a new administration," Kavakli and Rotondi said.

Previous studies have analyzed abortion rates under the MCP and found that, when the MCP is in place, the number of pregnancies and abortions increases. Kavakli and Rotondi study the link between the MCP and a broad set of health outcomes.

Using country-level data from 134 countries between 1990-2015, Kavakli and Rotondi find MCP to be associated with higher maternal mortality, child mortality, and HIV incidence rates. Furthermore, the effects are magnified by dependency on US aid and mitigated by aid from non-US donors, whose support is unaffected by the MCP.

For a subsample of 38 countries (population over 900mln) highly dependent on US aid, the effects imply between 1 and 4 percent increase in maternal and child mortality and HIV incidence rates. "Such figures are comparable to the effect of an ongoing civil conflict in a country," Kavakli and Rotondi said.

In absolute numbers, the estimates imply that re-instating MCP between 2017 and 2021 increased the number of maternal and child deaths in these 38 countries by about 27,000 per year and a total of 108,000 over the four-year term, and the number of new HIV infections by about 90,000 per year, and 360,000 over the four years.

THE PAPER

US Foreign Aid Restrictions, Maternal and Children's Health: Evidence from the 'Mexico City Policy', by Kerim Can Kavakli, Valentina Rotondi

How Italy overcame Germany's opposition and joined the euro

Perceived as unstable and therefore unreliable, with a political system that had collapsed a few years earlier under the blows of the Clean Hands investigation, our country succeeded, thanks to diplomacy, in an enterprise that seemed impossible at that time. Mauro Battocchi tells it in his recent volume* La partita dell'Euro *(The Euro match)

by Jennifer Clark @

MAURO BATTOCCHI
Italian Ambassador at Santiago de Chile, Alumnus Bocconi University

To most outside observers, Italy's dogged candidacy to join the euro in the mid-1990s looked like the proverbial moonshot. The country was recovering from a corruption probe, was plagued by political instability, and was far from meeting the single currency's economic parameters. In *La partita Dell'Euro, Italia e Germania tra cronaca e storia* (EGEA, 2022), diplomat **Mauro Battocchi** gives readers an insider's view of how Italian politicians and diplomats managed to overcome Germany's opposition to having Italy as a founding member of the euro. Battocchi served at the Italian Embassy in Bonn from 1995 to 1999 under Ambassador Enzo Perlot, who spearheaded Italy's drive to join the euro. Battocchi's 25-year career as a diplomat has taken him to Tel Aviv, Bonn, San Francisco, and now Santiago de Chile, where he was named Italian Ambassador in 2018. He holds an undergraduate degree in Economics from Bocconi University and a master's degree from the University of Princeton.

→ Let's go back to the mid-1990s when Italy was in the process of joining the euro. You arrived in Bonn in 1995. What was the climate like?

Italy was in the middle of significant changes, with the "Mani Pulite" corruption probe, the end of a political system. The country had come to the brink of bankruptcy in 1992 and the lira had been ejected from the European monetary system. A large part of public opinion saw Europe as a life raft. The 1990s were characterized by significant legal, economic, and administrative reforms. These were not always perceived outside our borders. The situation for us in Bonn was really tough because the context was unfavorable to Italy. In Germany, overseas, Italy was perceived as an unstable country, and therefore unreliable. Our candidacy for the single currency was worrying many.

It was clear to us that Italy had made and was making a lot of progress. But the attitude outside our borders was, "watch out, we don't trust you yet." I try to show how political will and a small team of diplomats in Bonn and in Rome were able to overcome this challenge, this lack of trust.

→ The role of diplomacy is often not visible from the outside. What role did it play in Italy's euro entry?

My goal is to demystify, or remove a few of the more esoteric aspects of diplomacy, and show there are flesh and blood people who talk to one another, who have to draft agreements, and who have to persuade other people like them. So it's a very practical, yet demanding exercise, with nothing abstract about it. There is a wealth of examples in the book. At the time, we strove to be as invisible and transparent as effective. Diplomacy is at the service of the republic, of the community. And the motivation driving these people is to do good for others, In a way that may not always be visible.

→ You recount a little-known behind-the-scenes moment when Carlo Azeglio Ciampi, who was Treasury Minister at the time, made a series of urgent late-night phone calls on March 24, 1998, to save Italy from being left out of the single currency. What happened?

According to the Maastricht Treaty for the monetary union, European central banks united in a governing council of the forerunner of the European Central Bank were required to sign off on the public finances of member states wanting to join the single currency by March 24, 1998. On that day, central bankers approved a draft statement saying they had was a "serious concern" about Italy. Such an opinion would have given Germany's Constitutional Court the grounds to rule that the single currency violated Germany's constitution. It was a very serious risk. And as fate would have it, Carlo Bastasin of *Il Sole 24 Ore* (a fellow Bocconi alumnus) got wind of the damning statement and published an article in the paper which appeared in the news kiosks in the early morning of March 25. Meanwhile the meeting's outcome was also filtered to Ciampi through back channels. Ciampi was furious. He was a former partisan and a man with nerves of steel. He picked up the phone, and he told central bankers Wim Duisenberg and Hans Tietmeyer that if the Italian economy went down the drain, history would hold them responsible. As simple as that. And after that, it was panic among central bankers. They called an emergency meeting the next morning, and changed the wording from "serious" to "ongoing." And "ongoing" is a classic diplomatic ambiguity. This formula enabled the central bankers to save face, and the process to move ahead. If those leaks hadn't happened, and Ciampi hadn't acted, how would the story have ended? We don't know. My goal was to bring readers behind the scenes, and show that when these decisions get made there are all sorts of moments of rage, tension, and euphoria. Ultimately, leaders can make a difference.

→ Let's rewind for a moment. You say in your introduction that Germany wanted the euro so that it could face the challenge of globalization. Today we mostly think about the euro as a step to an "ever closer political union." How much did globalization weigh?

A lot. The fall of the Berlin Wall led to the reunification of Germany. The EU partners endorsed it on the condition that Germany accepted a measure of shared sovereignty. Not political for the moment, but monetary. At the same time, China was on track to joining the WTO in 2001. People in business in the world realized that all the barriers were falling and that Germany and Europe needed to compete on equal terms with countries that had a price advantage and strong demographic growth. Europe needed to be fit for this challenge. And Germany's large companies realized this the most.

The monetary question had to be solved once and for all, to end competitive devaluations and reform an economic system that was weighed down by institutions and structures that were created for closed economies. By September 1997, the German government began defining Europe as "a community of reforms". The goal was to work together towards change, because China and the global world would be arriving tomorrow. And they really were! This is reflected in the book's title, *La partita dell'Euro*.

Was it a match between Germany and Italy? Yes, but you could also see it in another way, between Europe and the globalized world. And at that moment, we needed to decide: who would be fit to play?

→ While you were in Bonn, Germany changed its view on Italy's euro candidacy. Did you see it happening?

THE BOOK

Diplomat Mauro Battocchi arrived at the Italian Embassy in Bonn in 1996, just in time to take part in one of his country's most important diplomatic efforts since World War II: negotiating Italy's entry into Europe's single currency in the face of fierce opposition. His book *La partita Dell'Euro: Italia e Germania tra Cronaca e Storia* (Egea, 2022, in Italian) is an engaging behind-the-scenes account from a participant that contributes to the historic record, and raises crucial questions about the fresh challenges Italy faces today in seizing a new opportunity being offered by the EU with the National Recovery and Resilience Plan.

A big moment of change was certainly the first part of 1997. It became apparent that the unification of Germany was a huge burden for public finances. The State had a pile of investments to make. Social welfare payments to the citizens in the East were costly. At some point it became clear that Germany's itself would not comply with the Maastricht criteria of financial virtue. This made it much more difficult for the Germans to keep Italy out. When they realized they needed to struggle to get fit as well, their leaders thought, "how can we tell the Italians to stay out?". Germany carried out its own structural reforms in the early 2000s, under chancellor Gerhard Schroeder. But from mid-1997 the rhetoric changed. The public discourse started to evolve. Ostracism toward us subsided. We started breathing a sigh of relief.

→ Are there any similarities between Italy's effort to join the euro and the challenges it now faces with the National Recovery and Resilience Plan (PNRR)?

The reflection I want to leave the reader with is: "did we realize in the second part of the 1990s what it means to be part of the euro in terms of modernizing our country?"

Twenty years later, we have the Next Generation EU and the so-called PNRR, another big reform effort driven by Europe. We have to ask ourselves the same question: "what does it imply to compete on a global level as a country, a 'Sistema Paese' as well call it in Italian? How can we preserve our standard of living being part of the euro area in the light of the global challengzes we face?"

Now that the exchange rate is now fixed, the country must be able to manage its ability to compete and tackle its structural handicaps at all societal levels. I hope that the book can help people reflect on how our entire society must become increasingly modern and efficient to support our ability to prosper in the future. Living in Latin America makes you realize the extraordinary things we have in Italy. They are not guaranteed forever. We need to earn them every day, in a collective effort, where everyone needs to do their part. ■