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LAW AND ECONOMICS YEARLY REVIEW

ISSUES ON FINANCIAL MARKET REGULATION, BUSINESS DEVELOPMENT AND GOVERNMENT'S POLICIES ON GLOBALIZATION

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Mission

The "Law and Economics Yearly Review" is an academic journal to promote a legal and economic debate. It is published twice annually (Part I and Part II), by the Fondazione Gerardo Capriglione Onlus (an organization aimed to promote and develop the research activity on financial regulation) in association with Queen Mary University of London. The journal faces questions about development issues and other several matters related to the international context, originated by globalization. Delays in political actions, limits of certain Government's policies, business development constraints and the "sovereign debt crisis" are some aims of our studies. The global financial and economic crisis is analysed in its controversial perspectives; the same approach qualifies the research of possible remedies to override this period of progressive capitalism's turbulences and to promote a sustainable retrieval.

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ASSOCIAZIONE DI CULTURA ECONOMICA E POLITICA
GUIDO CARLI

presents

The West under Radical Uncertainty: Britain, Europe, America

CONFERENCE PROCEEDINGS

Webinar, 16 February 2021

Abstract

The following articles constitute the proceedings of a webinar — hosted on 16 February 2021 by Associazione Guido Carli — on the subject of *The West under Radical Uncertainty: Britain, Europe, America*. They cover international politics, economics, law, and finance with a multidisciplinary approach, upholding the very value of cultural richness as a response to our world's complexity. The introductory article (LUCA BELLARDINI and FEDERICO CARLI) deals with the historical evolution and the role of financial regulation, which — according to the authors — particularly over the most recent years, in Europe, has exceeded its role and de facto created further uncertainty, rather than contributing to a reduction thereof. The keynote speech by Lord MERVYN KING focuses on the recent volume by John Kay and himself (2020), where the two describe how the conventional economic theory has often failed to deal with a continuously changing reality, and hardly applies to the current geopolitical challenges. The related commentary (RAINER MASERA) outlines the major issues about Brexit and the financial industry, with a focus on the content and the rationale of global rules on banking (particularly capital requirements). The following op-eds (GIULIO TREMONTI, GIULIO TERZI DI SANT'AGATA and DANIELE CAPEZZONE) deal with relevant supranational issues, such as the European Union's internal policies and its positioning in world affairs. Then, the final remarks by two notable economists who are or have been in charge of regulatory authorities address the conditions whereunder central banking and monetary policy have to unfold at present-day (AFFONSO CELSO PASTORE), as well as the policymaking response to the COVID-19 pandemic and the macro-financial implications of the spread of crypto-assets (PAOLO SAVONA).

Foreword

As President of Associazione Guido Carli, I am humbled and honoured to present the proceedings of a remarkable webinar that covered international politics, economics, law, and finance with a multidisciplinary approach, upholding the very value of cultural richness as a response to our world's complexity. After an introductory article by Luca Bellardini and me, we include Lord Mervyn King's keynote speech and the contributions by the authoritative panellists who commented on his words: Rainer Masera, Giulio Terzi di Sant'Agata, Daniele Capezzone, Giulio Tremonti, Affonso Celso Pastore, Paolo Savona. We asked them to provide us with documents that were as close as possible to how their remarks were originally delivered, on 16 February 2021. Also, we kept most of the choices made by the authors in respect of style, formatting, and writing conventions. I personally thank all of them for their kind availability to partaking in the conference and help producing this volume, as well as the Editor of *Law and Economics Yearly Review* — Prof. Francesco Capriglione — for hosting us on such a remarkable Journal.

FEDERICO CARLI
President of Associazione Guido Carli

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PRESENTATION

Francesco Capriglione*

1. I am very pleased to accept a kind request from Federico Carli to publish in this Journal the papers of a *webinar* on *The West under Radical Uncertainty: Britain, Europe, America*, organised by the Association Guido Carli and delivered on 16 February 2021. The vivid interest on the theme and the authority of participants have promoted a debate in which the interdisciplinary approach between politics, economics and law provides interesting results within the context of an edited volume.

Without a simplistic assessment of the final outcomes, I am of the view that the mentioned volume is destined to make an important point of reference for those who are willing to further examine topics about the historical evolution and role of the EU financial regulation, while at the same time the economic and political integration of Member States.

The methodology used has allowed to investigate the data and recent developments within a specific context; therefore, the qualitative research finds its *momentum* in the empirical analysis of multiple legal sources and ongoing phenomena.

2. The reader will be able to identify the *complexity* that has characterised the above-mentioned process of integration, which is affected by «uncertainties» that show the limits of economic theory in the analysis of recent evolutions and geopolitical changes. In parallel, the focus of this book to specific banking rules, which impose requirements on the intermediary activities, is instructive to understand the discrepancy between ‘norm and fact’. Hence the consequence to design a regulatory framework that most often represents a barrier to the

*Editor in Chief.

objective of an economic and juridical convergence, giving its role to expedite the harmonisation process, which is not suitable per se to achieve the aims at the basis of an overall project of the european unity launched in the Fifties of last century.

The insightful considerations dedicated to Brexit and its main effects highlight the challenges for the UK which also needs to address the issues raised from the pandemic crisis; therefore, it is manifest the political connotation, more than economic, of those challenges.

It is evident from the articles published in this volume that there is a need to re-allocate the resources within our economies to back towards a pathway of sustainable economic growth. In this line, some contributions point on Brexit effects to underline the 'paradigm of uncertainty' which charaterises the analysis regarding their implications which induce to highlight the difficulty to recognise a "real" separation between the UK and the EU. From these considerations, it is realised an international framework affected by *problems* that impede the search towards efficient solutions in the definition of global equlibrium, which is exacerbated by the growing presence of China.

In the light of the above notes, this volume has a significant meaning with respect to the current war determined by the invasion of Ukraine from Russian Federation. As several authors argued, this war will mark an end to the *globalization* experienced in the last decades; the aggression of Russia poses risks to the international economic order, causing inevitable concerns for the integration of markets and multilateral cooperation process.

From an economic perspective, there is an imminent problem that moves from the evaluation of effectiveness of sanctions imposed against the aggressor to the effects of them on the availability of oil and gas, as well as on the spending capacity of households harmed by the increase of prices.

3. This volume concludes with some final remarks of two influential economists, who gained relevant experience in the financial sector from their

appointments at the Central Bank of Brasil and for the actual presidency of the Securities and Exchange Commission of Brazil.

These papers reflect the general time of uncertainties that has raised after the spread of pandemic and global diffusion of technologies such as cryptoassets.

It is clarified the distinction between risk and uncertainty, attributing the latter to the domain of "black swan" or to the known ones such as the pandemic; thus the consciousness that specific events should have occurred any time, so the lack of understanding of the relevance of uncertainty is ascribed to the responsibility of a wrong analysis.

From a different perspective, it is difficult to address the current critical situation with respect to theories and traditional experiences that are inadequate to resolve the lack of demand or offer in excess. As a result, it is clear the adoption of non-conventional decisions which induce to change the analysis of non-ordinary monetary and fiscal policies that are linked with the existing scenario of radical uncertainty.

Rome, 5 April 2022

"Adieu, Mon Droit": How Excessive Legislation Created Radical Uncertainty in the Financial Industry

Luca Bellardini [*] - Federico Carli [**]

ABSTRACT: *This paper argues that, paradoxically, the bounty of legislation passed throughout the most recent years in the financial realm ("rulemaking flood") has significantly contributed to the "radical uncertainty" faced by the industry. After reviewing the historical trends in legislation and regulation, we discuss the idea that a narrow set of heavily stringent rules — e.g., the religiously-derived prescriptions against charging interest on loans, during the Middle Ages — did not prevent finance from flourishing: instead, they somewhat circumscribed the space where players could operate with relative freedom. Conversely, in the aftermath of the Global Financial Crisis, because of an ideological approach to investor protection ("financial consumerism") inspired by the long-term dynamic of US financial regulation and epitomised by MiFID II, the modern era has been witnessing — at least in the European Union — a reversal of the trends begun with the early Industrial Revolution, when both British liberalism and Napoleonic principles would lead to the development of modern capital markets. Finally, we discuss whether the EU jurisdiction is actually ready to tackle the most urgent challenges faced by the industry, such as the rise of FinTech — including crypto-assets — and the increasing orientation toward sustainable finance. We claim that, although regulatory excesses and myopy have been generating undesirable financial effects (with negative spillovers on society-at-large), rule markers have now the opportunity to remain on track with a fast-evolving reality, thereby restoring the credibility of their role and being no more a source of uncertainty.*

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SUMMARY: 1. Introduction. - 2. How we came here: Economic regulation before the 20th century - 3. The modern Leviathan and how it is hurting the financial industry. - 4. Sustainability and technology: The challenges ahead.

1. *Corruptissimā rē publicā, plurimae leges*[1], the great Roman historian Publius Cornelius Tacitus wrote in his *Annales*. He was describing the slow but unstoppable decline following the popular expulsion of the last king, Tarquinius Superbus, and the advent of republican institutions: the multitude of laws was regarded as the effect of fainting morality, for systematic bribery had swept over governmental affairs. In fact, throughout a lengthy timespan almost five centuries long, legislation was enacted *non modo in commune sed in singulos homines*: that is, no more by looking after the general interest but rather in pursuit of narrow individual goals. Tacitus had clear in mind that any tighter regulation, per se, is not a good indicator of administrative efficiency; conversely, it would result from the policymaker's undecidedness, often driven by the difficulty to satisfy a wide array of particular needs.

Antiquity offers plenty of instances wherein the rulers' ability in drafting legislation was not matched by any superior certainty in respect of how the law itself would be applied. The clearest example probably relates to Justinian I, the famous Byzantine emperor. Aside from his artistically relevant portrayals in Ravenna, he is most known for having endowed his subjects with a magnificent collection of Roman laws (i.e., the *Codex*). That document constituted the first part of a broader *Corpus iuris civilis*, which was originally intended as a way of simplifying the incredibly complex pre-existing legal framework. It was accompanied by doctrinal writings (i.e., the *Digesta*) and even a summary about the legal system as a whole (i.e., the *Institutiones*), to yield the highest clarity as possible and minimise the chances that citizens could fail to abide by the imperial jurisdiction. In 532 AD, when the *Corpus* had already been composed and was

[1] "Under the most-corrupt government, there are plenty of laws".

undergoing scrutiny by jurists, the Emperor crushed into blood a violent uprising in Constantinople (so-called 'Nika riots'), leaving tens of thousands of dead. Interestingly enough, the rioters seem to have targeted those fonctionnaires who had been playing a major role in drafting the *Codex*, as they faced widespread accusations of administering justice for personal purposes and *de facto* arbitrarily. Many centuries after the fall of the Republic in Rome, Byzantium — despite the commendable efforts toward making the laws easier — had not yet garnered immunity to the conditions against which Tacitus had warned.

In a 1949 parliamentary speech, Winston Churchill protested at the economically interventionist stance of the post-war Labour cabinet, led by Clement Attlee, by implicitly expanding the Latin historian's view. Upon that occasion, he noted that social disintegration — hence, corruption — is not only a cause but, above all, an effect of proliferating legal constraints to human activities[2].

We aim to discuss the extent whereto overly burdensome provisions — which we define as *rulemaking flood*, made of both primary legislation (i.e., laws) and secondary one (i.e., regulations) — has in fact contributed to the *radical uncertainty* (Kay and King) that the world has been experiencing over the last years, by means of a manifold channel: *(a) regulatory capture*, in case the provisions were not enacted out of seeking the "common good", but to serve some vested "dominating positions" instead; *(c) ill-informed decision-making*, in case public authorities did make material mistakes in tackling a given issue, either because they overestimated the actual need of an intervention (for instance, by deeming some minor topics to be urgent, as a result of intense media coverage) or because they thought of possible solutions by relying on misleading data, maybe presenting alleged empirical evidence when data were actually inconclusive or open to discussion; and *(c) information overload*, in case the addressees received an excessive volume of prescriptions, some of which contradicting or openly

[2] "If you make ten thousand regulations, you destroy all respect for the law". House of Commons, 3 February 1949.

inconsistent with the underlying reality.

We are going to do this by focussing on banking and financial law, which has undergone several impacting changes over the last decades (and keeps changing to-date, as well).

2. If we had a glance to history, we would notice that, for most of the Middle Ages, severe restrictions to lending often came not from civil jurisdiction but, more frequently, a number of *sententiae* by clerical scholars. They usually condemned charging any interest, at all, given that — by definition — the latter arises only as time elapses: that is, it fully depends on a natural phenomenon, governed by God in the exercise of His exclusive power of giving life. Hence, for significantly long time, the vast majority of merchants had enjoyed only a few possibilities of engaging in financial activities, albeit this had not prevented many interesting contracts and operations from developing anyway[3]. That occurred mainly in far-away lands, where geographic distance could have loosened the religious grip enthralling Europe, however "soft" such power may have been (i.e., exercised as a "moral suasion" only), or openly limited by the presence of the Empire, and regardless of whether written laws did follow up or not. At a certain point, however, the extent of trade relationships had grown so large and intense that cross-border transactions became the very means whereby lending could be performed: in practice, interest was charged in exchange operations, thanks to the *letters of credit* that merchants used to carry with them when moving from one currency area to another, via the intermediation of primeval banks and their foreign subsidiaries[4]. It is no coincidence that, until the late Modern Age, the Italian word *cambiavalute* — that is, subjects operating in currency markets, but most frequently translated into *money traders* — denoted those involved in banking with its current meaning, which primarily relates to lending.

[3] See GOETZMANN, W.T. (2016), *Money Changes Everything*. Princeton University Press, Princeton.

[4] See DE ROOVER, R. (1963), *The Rise and Decline of the Medici Bank: 1397-1494*. Harvard University Press, Cambridge-MS.

This is to say that a relatively dispersed jurisdiction, relying more on "soft" sources than "hard" ones, did not end up creating uncertainty, at all. Conversely, lenders and their clients had often clear what they were allowed to do, and what they were restricted from. Banking ultimately became a "codified" activity; also, it perfectly integrated with the mediaeval economic system, centred around syndicates (*arti* or *gilde*) between craftsmen or other professionals.

Aside from the strictly financial realm, commercial laws were enacted with a view to keep them clear and easily understandable, particularly in the so-called "maritime republics" of Italy (i.e., Genoa, Venice, Pisa and Amalfi). Such "immediateness" in enacting the jurisdiction was deeply necessary in an environment wherein long distances could not have allowed lengthy dispute resolutions (perhaps inconclusive ones), given that some of the traded goods would perish in the meantime. Also, ready-to-use provisions were inspired by — and applied to — people, such as merchants, who often enjoyed above-average education, as their copious literary production should prove[5]. The *Amalphian Laws* (originally, *Tabula de Amalpha*), whose compilation dates back to the 11th century, do nothing but exemplify that trend. In particular, they formally acknowledged some commercial institutions that had already been spreading throughout the maritime world — at least in the Mediterranean area — such as the *commenda* and the *colonna*: that is, two distinct types of mercantile enterprises whose features may still be found in the juridical attire of present-day companies[6]. Though brief and concise, the *Tabula* would provide a valuable source for assessing the duties and rights of seamen; also, it would play a remarkable influence over the current western jurisdiction even after the "consolidation" of maritime and commercial law, as the former may be regarded as the latter's precursor.

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[5] Although not written by himself but dictated to a professional author, *The Travels of Marco Polo* — recounting the journey whereon a Venetian merchant embarked into the Chinese Empire, in late 13th century — is one of the clearest examples in this sense.

[6] In particular, the Italian *società in accomandita* is quite akin to that historical precursor, and directly takes its name after the old *comenda*.

Some readers might have already noticed that *Tabula* was an Italian term — passed from late imperial Latin to the early "vulgar" language — referring to both legal sources and the exercise of banking. These two aspects, ostensibly disjoint, are actually bound by their common appealing to a set of rules that discipline the formation as well as the execution of contracts (hence, more in general, civil-law relationships). That word is iconic of a tendency that would characterise financial legislation until at least the 1929 crash, made of a few principles enshrined in legal sources, several players called to enact them (with varying degrees of arbitrariness, too), but — paradoxically — an appreciable degree of *certainty* in respect of what was (not) licit and how controversies could be settled.

As a result, the mercantile realm used to be the major channel whereby nations could bountifully meet each other, in a world where conflict — not peace — was the standard. Even if clerics — particularly from heretical factions — often blamed profitmaking, seen as synonym to cupidity[7], this did not prevent an ingenuous, industrious bourgeoisie from gradually taking over the administration of countries. According to very well-known theories, some religious thoughts might even have favoured, rather than restrained, the development of what is now labelled *capitalism*[8]. Of course, this was typical of a still-nascent financial industry, wherein bloodlines (so-called "family and friends" financing) still constituted the most important channels whereby monies would flow, and many present-day issues had not arisen yet. Also, the State usually lacked the complex structures whereof it is made nowadays; hence, it could not be able to decisively steer financial activities in pursuit of "social" goals, and most of its economic interventionism was circumscribed to a few direct subsidies to the poor. Besides, relevant portions of modern financial industry did arise from private ventures

[7] Such idea was deeply rooted in several thinkers not only in the Middle Ages, yet well into the 16th and 17th centuries: for instance, Girolamo Savonarola, the friar who ruled over Florence once the Medici were expelled therefrom, and two notable authors of utopian oeuvres, such as Thomas More and Tommaso Campanella.
[8] Think not only of Max Weber's well-known *The Protestant Ethic and the Spirit of Capitalism* (1904-5) but the recent FRIEDMAN B.M. (2021), *Religion and the Rise of Capitalism*, Alfred A. Knopf, New York City, largely devoted to the Anglo-Saxon world.

established for mutualistic purposes, or with the solidaristic intent of enabling low-income citizens to access credit or insurance (e.g., the Italian institutions known as *monti di pietà*). Not only did sovereign states avoid reclaiming these entities' ownership, and kept themselves entirely outside their business; also, their development helped the Church on its path toward acknowledging the legitimacy of lending[9]. The latter started being regarded no more as something akin to usury but, more rationally, as a powerful means for bettering the conditions of the less fortunate.

The 1750-1850 century — ranging from the Enlightenment to the first "industrial revolution" and the bourgeoisie ascending to political power, previously held by the aristocracy — was the turning point in financial legislation. Along with the loosening religious grip, the long-standing prejudices against merchants began to wither. Due to the living memory of the tremendous civil wars between Catholic and Protestant forces, the British culture somehow anticipated a tendency that mainland Europe would not experience until the late 18th century. The immediate response to the religious infightings had been a deeper faith in the State's moderating role, in the exercise of absolute powers too: this was Thomas Hobbes' *Leviathan* (1651). Wiser reflections carried a new faith in man's possibilities, entailing that human brilliance could have overcome the adversities of nature, surviving in a difficult environment as a rebellious force against superior wills, and ultimately thriving in economic terms: this was Daniel Defoe's *Robinson Crusoe* (1719). Finally, even before steam engine (and related innovations) would revolutionise production and trade, the *wandering merchant* — maybe of humble descent — had already become a literary hero, living an existence basically opposed to social conventions and with little room for the enforcement of legal provisions, as if exogenous constraints whatsoever played no defining role in respect of human action. Henry Fielding's *Tom Jones* (1749) is probably the

[9] Surprisingly enough, one of the first theologians to move in that direction — namely, Pietro di Giovanni Olivi (1248-98) — belonged to the Franciscan order, and even the "Spiritual" faction thereof.

clearest example thereof.

However, in the pre-industrial era, it is likely that European intellectuals would not have fully understood the importance of juridical certainty in economic affairs — i.e., a starting point for wider liberties —without Voltaire's historically-based *Traité sur la tolérance* (1763), whose main character — Mr Jean Calas, a Huguenot merchant in Toulouse — was wrongly charged with murdering his son and sentenced to death (then posthumously rehabilitated). Economic issues are not central in that *pamphlet*; conversely, they would find extensive coverage in Alessandro Manzoni's *The Betrothed* (1827), particularly in a later edition (1840) including *Storia della Colonna Infame*, which is a remarkable "historical appendix". In the novel's main body, the rulemaking flood is repeatedly blamed, as the author held in high disregard the "baroque" culture as a whole, starting from its literary devices[10]. In particular, he highlighted those certain measures taken in Milan by the Spanish rulers, around 1630, did openly backfire: for instance, so did imposing a fixed price on bread, whence supply was deterred, and scarcity hardened[11]. In the appendix, the author showed that the very undertaking of his job costed a barber the false accusation of deliberately spreading the plague, as if he had sparked the contagion by poisoning his customers; finally, in execution of a judgement, that poor man's house and shop would be destroyed and an "infamous" column erected on the ruins, for future generations to see[12].

Of course, industrialisation gave a more precise direction to the economic theories that were unfolding at that time. Similar to Manzoni's criticism to economically interventionist governments were the British parliamentary coalition — ultimately successful — that, in those very years, vigorously upheld repealing the so-called *Corn Laws*: that is, an array of protectionist measures on agricultural

[10] That is basically the idea underlying the fictional event — narrated at the very beginning of the novel — of discovering a 17th century manuscript, written in a highly pompous and hardly understandable language.
[11] The uprising due to the soaring price of bread, with a thorough discussion of the economic causes and policy implications, is the major theme of the novel's Chapter XII.
[12] It was downed just in 1778, under the "enlightened" kingdom of Empress Maria Therese of Austria: at that time, in fact, Milan had become the capital of the Italian Enlightenment (alongside the Grand Duchy of Tuscany).

products. Although liberalisation was actually fostered by special interests (e.g., textile manufacturers), this nonetheless marked a turning point in the relationship between legislators and regulators, on the one hand, and citizens engaged in economic activities, on the other.

If we looked, specifically, at banking and financial legislation in the United Kingdom, we would observe a long-term deregulatory trend that actually arose from overwhelming money creation, particularly for the purpose of financing the debt incurred because of grand military operations. That very goal underlay the establishment of the Bank of England in 1694 (though not yet as a public institution), at a time dominated by wars against the Sun King's France. The same rationale applied to the ignition of the *South Sea Company*, a government-sponsored entity whose stocks were held by both the State and private investors. The latter, in fact, was conferred with a monopoly on several colonial affairs (trade in first instance, of course), mainly with the goal of deconsolidating sovereign liabilities related to heavy defence expenditure. A few years after its foundation, however, the Company's shares faced extreme volatility and suddenly fell, proving that the remarkable and continued growth previously enjoyed by its stock price was actually a 'bubble'.

Financial folly would certainly return upon the Napoleonic wars, as perpetuities (so-called *consols*) became very popular among sovereign debt issuances; also, a further regulatory squeeze — accompanied, this time, by Draconian economic policy measures — would be experienced upon the two 20th-century world conflicts, not only in the United Kingdom. These intervals aside, the discipline of financial services underwent substantial liberalisation over time. The most immediate proof of the Government's benevolent approach is given by the London Stock Exchange being set up in 1801. It was among the first globally, and not only did it represent a way for sovereign securities to be easily traded but, also, helped avoiding the complete crowding-out of savers at a time in which the public sector had become dominant again. The appeal of London-based trading venues would not falter even during the 1970s, when Britain was commonly regarded as ‘the sick man of Europe’ and State intervention did peak; instead, it would be strongly enhanced by the ‘Big Bang’ unleashed by the Thatcher cabinet in October 1986[13].

More in general, until the 1929 crash, as markets became more sophisticated but also larger, more liquid, and populated by an increasing number of players, the typical reaction of western governments was of encouraging transactions, rather than getting scared from their swift, maybe opaque development. At least in Europe, the discipline of financial activities remained grounded more in practical reality than abstract ideology: overall, it was light-touched and designed by incentives — in order to benefit social welfare — rather than exhibiting a “repressive” approach (i.e., limiting the individuals’ wealth accumulation, putting constraints to risk-taking, and so on). This reflects the positive influence exerted by that strand of legislation stemming from the Napoleonic Code (1804), which, in turn, owed a lot to the focus on individual rights dating back to the Enlightenment as a philosophical system, or the French Revolution as a watershed event in rulemaking (not merely in France).

Such relevance holds true even if we regard some events thereof (e.g., ‘Reign of Terror’ by the Jacobins) as some of the first modern instances wherein a tyranny was exercised “from the bottom”, in the name of the most derelict, letting the collective dimension take over individual freedom. It is a matter of fact that, in continental Europe, the most liberal tendencies arisen with the French Revolution — i.e., those enshrined in the *Déclaration des droits de l’homme e du citoyen* — did prevail over those pushing for a strong, invasive State that would have allegedly elevated the living conditions of the people (as opposed to the past, when it used to isolate itself within a sumptuous court and, thus, ignore the common people’s needs). Fortunately, the ideas underlying the “new regime” usually postulated that an open economy — wherein not just the already well-off but any industrious citizen could enjoy success — was the only path whereby

[13] It basically removed many of the constraints to the operations that stock exchange agents were allowed to carry out, reduced transaction costs, and accelerated the dematerialisation of securities.

France could lift itself and shine, despite past obscurity. Some notable French economists — Bastiat, Say, De Molinari — brought their significant contribution to a pro-business cultural environment, which ultimately resulted in one of the first bodies of commercial legislation, whose influence would stretch far into modern jurisdictions. The following paragraph details how, in a very few years, the western world has seemingly moved very far away from that virtuous model.

3. Despite the frequent changes in the stance of financial rulemaking, as well as the different "waves" of State interventionism throughout the 20th century, the 'radical uncertainty' whereon we are talking is a relatively new phenomenon, dating back to the very period in which — once the Cold War had ultimately come to an end — the *liberal world order* found much deeper difficulties in advancing itself, compared to what one could have expected. In fact, the complexity of the 'global village' (McLuhan) has mostly prevented a sound, harmonized legal system from arising in respect of financial activities, even in those jurisdictions — e.g., the European Union — where that goal is officially declared.

First of all, financial market operations have consistently *exceeded* the legislation outstanding while, at the same time, *anticipating* that which would be enacted. Perhaps surprisingly, this has occurred not only in the most "up-to-date" segments — e.g., FinTech and 'green finance' — but, also, more traditional activities, such as commercial banking or even just lending. For instance, the European Community (EC) did acknowledge the possibility for credit institutions to settle everywhere within the EC itself ('free establishment') only at the end of the Seventies (Dir. 77/780/EEC), when technological progress — in particular, the spread of computers, associated with the speedier transmission of data — had already made cross-border activities the standard, rather than the exception, and some timid steps of democratization in Eastern Europe economies had already made some forward-looking thinkers envisage that, sooner or later, large and bountiful markets beyond the Iron Curtain would be made available, need credit for recovering after the tyranny, and maybe face a sudden wave of liberalizing reforms. Therefore, constraining Europe into domestic banking systems was something really old-fashioned, but not so distant from the incredibly stringent American laws prohibiting banks from opening branches outside bordering States.

It took another decade (Dir. 89/646/EEC) for the pivotal principle known as *mutual recognition* to be acknowledged, coupled with charging home-country authorities with the task of supervising cross-border intermediaries in first instance. Unfortunately, at a time in which the rulemaking flood is underway, there is significant evidence that, in practice, the oversight of large, transnational, diversified conglomerates is far from occurring smoothly. Also, this is due not only to the supervisees' opaqueness but, much more frequently, because authorities find it difficult to coordinate themselves and properly assess risks, particularly those pertaining to systemic stability. As the recent Evergrande affair has shed a light on, this does not hold in respect of financial companies only but yields relevant onto sectors that have been historically intertwined with financial activities and have been severely hit by the COVID-19 crisis, such as the real-estate one. Moreover, the LIBOR scandal has exposed the intrinsic inadequacy and lacking reliability of the "gold standard" rate used in deposit-taking and lending, either to clients or on interbank markets: in fact, regulators reacted at a relatively slow pace, and only recently have they managed to address the 'radical uncertainty' on what should just be a commonly accepted measure for financial activities[14].

In addition to this, end clients have often faced much lower uncertainty vis-à-vis intermediaries, due to the low-rate environment induced by extremely loose monetary policy, on the one hand, and a wide strand of investor protection rules, on the other. Conversely, banks have been subjected to heavy regulation, which has ultimately resulted — under the Basel framework — in a much more prudent profile of operations, despite the lack of explicit mandates not to undertake certain activities (such as the one enshrined in the 2010 Dodd-Frank Act).

[14] We hereby refer to the European Short-Term Rate (€STR, or 'ESTER'), retrieved from overnight interbank markets as a replacement of EURIBOR, starting from 2 October 2019.

Although the European banking industry seems to have recovered fully and quite readily from the GFC, several concerns on its profitability — much more than capitalisation and asset quality — do remain in place, and not only because of low interest rates. For instance, the "global" regulator — i.e., the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), and so on — still seems extremely cautious in acknowledging that the whole financial industry has utterly changed, and a completely new array of both players and risks has recently emerged as a potential threat to traditional business models. This holds, in particular, in respect of those clients that have been historically "unbanked", or at least excluded from the major financing channels — either equity or debt — because of their "subprime" creditworthiness: e.g., very young firms, maybe start-ups, or just individuals with nothing more than a promising business idea and substantially no collateral to post.

The rise of a "parallel universe" in that industry — including, *inter alia*, crowdfunding, peer-to-peer lending, and other micro-businesses of that sort — is not merely the result of technological disruption, nor the physiological effect of traditional players failing to exploit profitable opportunities in the high-risk, high-reward segment. In fact, the latter is rather the consequence of improper risk-taking during the *Great Moderation* years[15], and no viable alternative was actually available when the bubble burst, back in 2008. A dismal reality is that, notwithstanding the possibility to detect the early signs of a deteriorating industry, worldwide regulators did nothing to avoid capital requirements from unleashing their well-known *procyclicality*. This is by itself a source of uncertainty, as it undermines the very performance of financial activities (particularly lending): in fact, lighter (heavier) requirements are charged at times of economic growth (downturn), characterised by better (worse) asset quality, thus enhancing (curtailing) performance even more.

In the investment services sector, uncertainty has been remarkable over the

[15] These are generally identified with Alan Greenspan's tenure as Federal Reserve chairman (1987-2006).

last years. Until the Eighties, there was something like a tradition of leaving it largely unregulated or, at most, abide by civil-law rules, in line with the Napoleonic Code approach. Then, starting with the *Investment Services Directive* (93/22/EEC), there has substantially been one piece of legislation per decade, culminating with two versions of the *Markets in Financial Instruments Directive* (MiFID): namely, I (2004/39/EC) and II (2014/65/EU), the latter accompanied by a Regulation (600/2014) in a comprehensive "package" on that subject. Despite the efforts to provide clarity over the information set available to investors operating in public trading venues — via the so-called *Prospectus Directive* (2003/71/EC) — and, thus, contain the proliferation of "dark pools" and other platforms with an opaque price formation process, the goal of protecting investors — particularly retail ones — has quickly overshadowed the maintenance of an efficient and smoothly functioning financial system, able to satisfy the needs of all its participants. Also, in certain fields — e.g., rules on voting rights at the general assembly of publicly-traded entities — the degree of EU harmonisation is still relatively limited; conversely, firms often have no disincentive to move across stock exchanges, in pursuit of frameworks that would support — rather than deter — an effective decision-making, such as via shares allowing their holders to cast multiple votes. The effort toward liberalisation and simplification that some NCAs have recently undertaken — among those, CONSOB — are commendable, yet an even "bolder" acceleration is needed: in highly effective words, *law rules over markets, yet there is also a market for rules, which must be taken into account if we want that a market to regulate may continue to exist* (Ventoruzzo)[16].

In fact, it almost seems that EU regulators have sometimes made decisions by mostly ignoring the industry's actual needs, but rather abiding by ideological prejudices not really rooted in the reality of financial activities. A clear example thereof is provided by the MiFID II mandate — largely applying to investment banks and similar subjects — to disentangle research-related income from the

[16] VENTORUZZO M. (2022). "Voto multiplo e prospetti: è qui che Milano soffre ancora nel mercato del diritto". *Il Sole 24 Ore*, 5 January 2022.

revenues reaped by providing the very investment service, and keeping accounts separated accordingly. The rationale is that of reducing the largest conglomerates' market power, curbing the price paid by clients and, thus, helping SMEs: on the one hand, those advisory boutiques and small financial companies that provide such services (first of all, research); on the other, all those tiny non-financial entities — yet extremely relevant for the economy as a whole — that are the recipients thereof. Unfortunately, such naïveté — which is often common to relevant portions of the antitrust legislation — has not yet yielded the expected result but only driven prices up, before it was ultimately suspended as a response to the COVID-related financial crisis.

This rule highlights another issue with the extant financial legislation: in fact, such discipline is not in the "main body" of the Package (i.e., either the Directive or the Regulation) but lies in *delegated acts* instead, adopted by the EU Commission in abidance by the above. As a matter of fact, many domestic authorities — primarily central banks — that once oversaw financial entities have delegated these powers onto different bodies, responsible for either the *conduct of business* or *micro-prudential regulation* alone, often by retaining for themselves macroprudential tasks only. So, the British supervisory architecture has witnessed the decoupling between the Authorities in charge of Financial Conduct (FCA) and Prudential Regulation (PRA), respectively, pursuant to a model that has been labelled *twin peaks approach*. The EU landscape is far more varied, particularly as a result of the reforms suggested by the Lamfalussy (2001) and the De Lariosière (2009) committees; anyway, the Commission — i.e., a political rather than a technical body — does hold significant powers in making pieces of legislation and regulation, as well as — by means of its Directorates-General (DGs) — executing them too.

This structure has been mimicked by the way in which the response to repeated financial crises — i.e., the Global Financial Crisis (GFC), the European Sovereign Debt Crisis (ESDC), Brexit, and the COVID-19 pandemic — has unfolded through the years: that is, either with a too idealistic approach, substantially detached from the market players' needs, or on a too detailed level, unable to properly address very specific issues with a view to improving the overall functioning of the system. This is seemingly at odds with the growing focus on *stability*, coupled with a significant decline in the regulatory care for the *efficiency* of intermediation, given that the two are connected by an unsolvable trade-off.

No doubt this strongly contributes to citizens having little trust toward financial institutions, something irrational whose comparable in history should be traced back to the religious ideas opposing finance as a whole. Nowadays, then, the State has ostensibly replaced the Church as financial intermediaries' major foe, as if the political power had designated the economic one as enemy in the wake of the GFC, due to the financial industry's (undeniable) responsibilities in generating the crisis itself. However, as we have previously discussed, regulation should be blamed too. The subsequent recessionary period — namely, the ESDC — did show some improvements vis-à-vis the past, such as the establishment of the *European Banking Union* (EBU). In particular, the second pillar thereof — devoted to the 'recovery and resolution' of troubled credit institutions — is likely to prove that some

progress has actually been made. Of course, the EBU needs not only to be completed (and what a challenge it is, to harmonise deposit guarantee schemes without adding on moral hazard!) but, also, to be complemented by a *Capital Markets Union* (CMU), which still lags significantly behind and is the *condicio sine qua non* for banks to be more resilient to system-wide shocks.

Indeed, *technology* is a great enabler or driver of those results that public institutions are expected to achieve, yet a 'sound and prudent' regulatory action remains essential for an efficient functioning of individual intermediaries as well as broader markets. This would urge public authorities to faithfully cooperate, without charging their supervisees with too burdensome duties and requirements, and keeping a mutually fruitful dialogue with the industry, such that no substantive responsibility be escaped. For instance, in respect of *cryptocurrencies*, it would entail that central banks do not refuse to acknowledge them as money, tackle the problem instead, and devise solutions that be different from the mere abdication to their duty to regulate (in fact, they are somehow used to label crypto-assets as nothing more than financial instruments)[17].

This realm is closely connected to the issue of radical uncertainty, as we are far from understanding how prices get formed and, in turn, this makes forecasts extremely hard to formulate. Also, the opaqueness of many data raises serious concerns over the effects of these markets on systemic stability. Public authorities in general (but governments first, with a few exceptions) are remarkably late on this, and many financial industry players do perceive regulation as it were something from a different era, thus deeply inadequate to withstand contemporary challenges or — even worse — unlock new opportunities. The solution would never lie in a comeback to past principles, as if the industry's growing complexity had not made it inherently less resilient (i.e., more exposed to systemic jolts). The 'brave new world' (Huxley) wherein we live is a less secure one, compared to yesteryear: *instability* has already become a keyword of our times, and is likely to remain so in the near future. The only things to fear — and, thus, prevent from occurring — are, first, denying the problem itself (or the multifaceted nature thereof); second, applying ideological solutions to large, practical problems that affect millions of individuals and entities. Something similar occurs, unfortunately, in respect of issues related to sustainability, as if the most important thing to do were just disclosing a commitment instead of taking practical actions, or circumscribing the latter ones to the environmental field. The only lasting solution would be generated *within* economic players themselves — i.e., at their business models — and readily received, with absolutely no delay, by the extant regulatory framework. Such bottom-up approach has hitherto failed to be adopted, yet it is never too late to change pace.

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[17] In this respect, see SAVONA P. (2021), *Lineamenti teorici e pratici di un'economia con le cryptocurrency*. *Lectio magistralis* delivered at the University of Cagliari, 1 October 2021. Available at *https://www.consob.it/documents/46180/46181/Lectio_mag_Savona_20211001.pdf/fe63a6b3-c5d5-442a-a5e7-f0b3cc127e45*

Hence, both the goals and the tools that characterise financial regulation have undergone a remarkable transformation compared to those years — between late Seventies and early Nineties — when the world realised the benefits of globalisation and moved decisively toward creating a 'level playing field' for market players to act freely, regardless of their nature, size, and investment orientation. Another significant drawback of MiFID II legislation is remarkable in this respect: in fact, the overly focus on investor protection has de facto subjected any provider of investment services to abide by a very general set of principles, often very abstract (though substantiated by means of second-level regulation), which were originally designed for a niche of the industry. For instance, also 'tied agents' — i.e., employees of a financial product's marketer, or sometimes the manufacturer itself — are mandated to act *in the best interests of their clients* pursuant to the Directive's Recital 71.

This makes their business closer to independent advisory, in a clearly illogical way, thereby adding on the rulemaking flood: in a sense, regulators feel themselves legitimised to enforce investor protection by constraining the selling or recommendation of financial products and services. Some might object that such tendency is not actually new, at least if we look at the United States. In the early 20th century, prior to the 1929 crisis, a large populist movement — which had been ignited in the late 19th, gaining widespread approval amongst farmers and ranchers in Midwestern states — had been advocating a severe repression of financial services and activities, while — at the same time — lobbying against the gold standard, in favour of bimetallism instead[18]. Such tendency was closely associated with the antitrust vague that was best expressed in President Theodore Roosevelt's speeches, which would soon be received into Supreme Court rulings

[18] In fact, monetary issues were at the forefront of most US presidential elections held between 1896 and 1928, when Democratic candidates had strong ties to the populist movement, which basically opposed the East Coast industrial and financial élite (closer to the Republican Party, at that time).

(e.g., those authored or commented by judge Louis Brandeis[19]).

America has never really forgotten that experience; conversely, at a certain point in time, Europe would start following the same trend; hence, *consumerism* did easily sweep over the financial realm. In fact, the idea that the recipient of such services be always the weaker counterparty, thus deserving stronger protection, does openly contradict those principles enshrined in the Napoleonic Code. Moreover, the specialty of financial legislation — including heavier taxes charged on financial companies — is clearly acknowledged even in those countries wherein commercial disputes — including financial ones — are settled by ordinary courts, instead of ad-hoc ones (e.g., Italy, as opposed to France): in fact, it might be the case that certain small arbitration bodies are entitled to pursue a composition of the litigants' positions, in accordance with the *ombudsman* Scandinavian model.

This does not suffice, unfortunately. Inter alia, this is because of the remarkable political influence over corporate strategies and policies: not only at local financial institutions, with a territorial scope and/or a mutualistic goal (e.g., co-operative banks) but, also, on the system as a whole, due to the presence of parliamentary committees entrusted with uncovering potential systematic mismanagement in the financial industry and the continuous threat of reforms, which are often incomplete and face the industry's opposition. This last is, probably, the most visible sign of a rulemaking flood whose negative consequences are ultimately borne by investors, regardless of their size and frequency of operations.

4. As discussed in the paragraphs above, regulation is not only — or not so often — a source of stability, compared to the increasingly alarming risks it might end up generating within the financial system. Unfortunately, this is particularly true in respect of Europe: recently, some NCAs have vocally warned against such a

[19] He also published a remarkable monograph on the issue, titled *Other People's Money and How the Bankers Use It* (1914).

threat, in terms as clear as we had never heard of[20]. Nevertheless, there clearly are some points of light that should be preserved and possibly enhanced, as they play a pivotal role with respect to the macro-challenges ahead.

First of all, the attempts made to bring supervisory clarity in the realm of sustainable finance should be appreciated and commended, at least as they try to minimise the extent of *greenwashing* to affirm the idea that the regulator is committed to providing incentives to the sustainable transition. This is due not only to an "idealistic" approach, given the commonly-accepted relevance of the issue for both the contemporary world and future generations, but also a "pragmatic" one, given the growing evidence that adopting more sustainable business models — particularly *circular* ones — does reduce default risk, the volatility of returns on publicly-traded stocks, and the exposure to market fluctuations, also in case of exogenous shocks[21].

Discussing the details of the ongoing legislation and regulation would clearly go beyond the scope of this article, yet some remarks should nonetheless be made. First, the effort toward establishing a *taxonomy* for sustainable economic activities — culminating with Reg. (EU) 2020/852 — should be appreciated as of its purpose, albeit the focus remains too much on protecting the environment (in particular, fighting against climate change) and too little on social issues. The approach to the latter should be, in fact, closely intertwined with fostering the values underlying the western civilisation: i.e., individual freedom and respect for human dignity.

Throughout the centuries, the pursuit of trade affairs — or, more in general, the performance of economic activities — has sometimes coped with a universally widespread affirmation of civil rights, and the modern era makes no exception.

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[20] NOONAN L. (2021). Europe's over-complex bank rules increase risk, watchdogs warn. *Financial Times*, 23 December 2021.

[21] On this topic, see the stream of research on circular finance carried out at Bocconi University's GREEN Research Centre (ZARA C. *et al.*, 2019-21), a summary whereof may be found in the white paper — under the scientific supervision of Claudio Zara — by BOCCONI UNIVERSITY, ELLEN MACARTHUR FOUNDATION, INTESA SANPAOLO (2021), *The circular economy as a de-risking strategy and driver of superior risk-adjusted returns*, available at *https://emf.thirdlight.com/link/29wifcw68gx1-yw31dj/@/preview/1?o*.

Despite the recent drafting of an *Action Plan*— which is rooted in the United Nations' Sustainable Development Goals (SDGs) and was at the forefront of the Porto summit in May 2021 —, Brussels' overall "uncertainty" in addressing the Social pillar of the ESG framework shows how timidly the EU has hitherto been advocating the principles whereupon it was built, and mostly in soft-law terms, thereby impairing its own standing within the international community.

Conversely, in an apparent contradiction, Brussels has recently shown a firm commitment to enhancing corporate non-financial disclosure (NFD), hoping to spark investors' attention to sustainable products. Of course, it is clear that the real booster of disclosure is an effective taxonomy; and, as a matter of fact, at least in Italy, the spontaneous issuance of non-financial reports by companies that are not mandated to do so remains relatively low, and rarely is NFD integrated within the management report[22] (which indeed would be a more effective way of dealing with sustainability issues).

Moreover, the upcoming years will tell us whether the expansion in the volumes of sustainable securities is driven by the mounting of an investment bubble (another one in the realm of innovation!) or, instead, a fundamental change in production processes, aimed to ultimately achieve a full, mutually-reinforcing compatibility between quantitative growth and the minimisation of negative externalities (i.e., noxious spillovers onto the broader economic system). In particular, Reg. (EU) 2019/2088 — so-called *Sustainable Finance Disclosure Regulation* (SFDR) — carries a specific and hitherto unexperienced attention to the "impact" that an activity may generate from both an environmental and a social standpoint, exhibiting a holistic approach to the issue at hand. In this sense, it might constitute the signal that the EU legislator is willing to convey serious and clear messages to the market, potentially enabling an improvement in the way whereby companies report on the broader effects of their operations. However tough it may be perceived by asset managers (AMs), the SFDR's very spirit might

[22] For detail, see *https://www.consob.it/web/area-pubblica/soggetti-che-hanno-pubblicato-la-dnf*

constitute a ‘nudge’ (Thaler): that is, a “gentle push” for AMs to shift the composition of the collective investment schemes whose units they offer the clientele, in order not to be deserted by those customers that have become increasingly concerned about sustainability.

However, not only does much still abide, but most of the European environmental legislation still seems unable to match the needs of the poorest citizens, whose personal transition to “greener” habits might be highly expensive (e.g., purchasing and fuelling electric cars, owning a house endowed with low energy efficiency whose value falls, etc.). In this regard, some recent proposals[23] strengthen the idea that the EU has become an overly bureaucratic body, such that the decisions made by a few technocrats would be too distant from the people’s needs. Nevertheless, the slower and relatively silent work targeted at designing a more suitable regulatory framework — hence, a more effective one — is worthy of a renewed effort.

Other unescapable regulatory challenges are those arising with regard to FinTech, in general, and crypto-assets, in particular. Of course, a detailed analysis of even just the most significant issues would require a separate article. Instead, we just note that the current loopholes are remarkable, as highlighted by the very development of shadow banking activities[24] and the contemporaneous rise of so-called ‘Big Tech’, whose policies raise important questions in respect of individual liberties, freedom of expression, and the exercise of democratic rights. The fact that financial services that are currently subjected to regulatory authorisation have already to compete with unlicenced providers casts doubts not only on the effectiveness of regulation, but on the latter’s *raison d’être* as well: why is the financial realm populated by entities that cannot unleash their full potential, whereas others are allowed to act in a substantially opaque way, accountable to

[23] In December 2021, in the light of some previous drafts, it was speculated that the EU Commission would pursue a ban on selling or renting out the buildings exhibiting the lowest energy efficiency (i.e., classes F and G), albeit the final proposal for a Directive did not include such a measure.

[24] LEMMA V. (2015). *The Shadow Banking System: Creating Transparency in the Financial Markets*. Palgrave Macmillan, London.

none? How would the whole of the financial industry change, if regulatory symmetry were ultimately restored with softer rules, but applying also to those that currently evade them?

The same question should be asked when looking at cryptocurrencies, given the severe restrictions or even the complete ban they face in many countries worldwide, even in case they managed to prove themselves as relatively stable and, thus, inherently similar to legal-tender coins. In fact, while volatility is the major issue that governments and central banks cite to justify their opposition to crypto-assets, these markets have been gaining liquidity and depth, ultimately reducing their intrinsic exposure to system-wide shocks. Conversely, many *fiat* currencies continue to be highly volatile and — like in a vicious loop — countries endowed with weak, devalued currencies are more likely to repress the minting and circulation of crypto-assets. These last, for the moment being, are (hardly) accepted as collateral for securities denominated in legal-tender money only in the form of crypto- financial contracts (e.g., futures written upon Bitcoin), not physical coins (e.g., Bitcoin itself), in developing as well as advanced economies[25].

Within such a chaos, which is per se a monument to uncertainty, only one thing can be stated with no doubt: regulation, at least as we have insofar known it, is headed for a complete overhaul. Most importantly, the fact that many countries are discussing the possibility of issuing sovereign crypto-assets — labelled *central bank digital currencies* (CBDCs) — is a direct challenge to the very idea that informs the crypto- framework, which rests on the 'denationalisation of money' (Hayek). Moreover, while unregulated shadow banking constitutes an exception to the "rule" (i.e., a closely supervised financial industry), CBDCs would themselves constitute an exception in a realm that has always been — almost by definition — characterised by little transparency, no lender of last resort, and no monetary power entrusted to a single body. Hence, if the ongoing projects — e.g., the ECB's 'digital euro' launched in July 2021 — eventually gave rise to a new array of

[25] With regard to the USA, see the SEC statement available at *https://www.sec.gov/rules/sro/nysearca/2021/34-93859.pdf*.

sovereign cryptocurrencies, the role of existing controlling authorities should be wholly rethought, for there would be no more room — at least from a juridical standpoint — for private assets to flourish.

Conversely, the solution to the conundrum of having regulated financial companies as opposed to shadow banking players is somewhat easier, as it could be identified with the collaboration — with regard not only to products, but financing and investment decisions too — between traditional providers and innovative firms, as long as a friendly approach would be beneficial to both: remove a source of unlawful, relentless competition to licenced players, on the one hand, while enabling small firms — including start-ups — to access new markets and customer segments, on the other. To some extent, this trend has already been unfolding, at least from 2013 onwards[26].

In practically all countries worldwide, regulators have the inner resources — starting from "human" ones — to realise how ambivalent their role has been; hence, to rapidly and effectively change the pace whereat they have been operating. Also, they would have to amend the assumptions whereon they have hitherto grounded their actions, as a "punitive" approach to financial law-making has already been taken — at least from the immediate aftermath of the GFC — but, unfortunately, has brought little if not negative results. Resisting those voices that uphold "consumeristic" stances — as if investor protection were the only goal of legislating — is the first step for a new era in financial regulation to begin. Dismissing the ideological approach to (exclusively) environmental issues (that is, avoid smashing the less fortunate), and expanding regulation by incentives while closing the loopholes where greenwashing hides, is the correct way to allow the markets for sustainability-related securities to grow "healthily", without any bubbling behaviour, thereby propelling the transition itself. Stopping ignoring the development of fintech, and maybe terminating the useless discussion on whether

[26] See BELLARDINI L., DEL GAUDIO B.L., PREVITALI D., VERDOLIVA V. (2022). How do banks invest in fintechs? Evidence from advanced economies. *Journal of International Financial Markets, Institutions and Money*, 77 (2022), 101498.

crypto-assets do abide by Hicks' tripartite definition of money[27], to focus on their role in the financial system instead, is the precondition for avoiding that a mutually destructive war between traditional and innovative players will take place.

All these challenges have a common prize: that is, restoring the credibility of regulation and enabling the latter to work again, without constituting a source of uncertainty anymore. We believe it is not too late.

[27] That is: a unit of account, a medium of exchange, and a store of value.

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THE PANDEMIC AS A MATTER OF RADICAL UNCERTAINTY

Lord Mervyn King *

ABSTRACT: *Similar to the distinction between risk and uncertainty originated with Knight and Keynes, this keynote speech highlights the need of a separation between 'resolvable' and 'radical' uncertainty. The COVID-19 pandemic is an example of the latter: this is the reason why both economic and epidemiological models have been misused, thus leading to an unfortunate degree of bogus quantification. To illustrate this, the author exposes some of the challenges facing the United States, Europe and the United Kingdom, while discussing the most suitable exit strategies from the pandemic.*

SUMMARY: 1. The importance of radical uncertainty. - 2. Exiting the pandemic. - 3. The necessary reallocation of resources. - 4. Conclusions.

1. In January last year, the International Monetary Fund forecast that the world economy would grow in 2020 by around 3 ½%. In January this year, they revised their view of growth last year to -3 ½%. This turnround in estimates of growth of the world economy in the year ahead by seven percentage points must count as one of the largest forecasting errors ever made. Of course, it is perfectly understandable. The forecast did not take into account the possibility of the pandemic through which we are still passing. But it illustrated the fallacy of believing that we can forecast the future easily. No range of uncertainty was given, nor could easily have been calculated. There were no different scenarios presented. And no probabilities were attached to the forecast.

On 30 January 2020, the World Health Organisation declared that COVID-19 was "a public health emergency of international concern". A year later, over 100 million people have contracted the disease and the death toll is rapidly

*Former Governor of the Bank of England.

approaching 2 ½ million.

When John Kay and I submitted the final manuscript of our book Radical Uncertainty to the publishers in the summer of 2019, we wrote that “we must expect to be hit by an epidemic of an infectious disease resulting from a virus that does not yet exist”. You might think that we demonstrated an unusually high degree of prescience. You would be wrong. Knowledge that a pandemic was likely at some point in no way enabled us, or anyone else, to predict when, or where, or what type of virus would emerge. COVID-19 is a classic example of what we call “radical uncertainty”. It is not a black swan event — something which is impossible to conceive until it happens. We all knew pandemics were possible, even likely. But there was no way in which one could attach probabilities to events such as “a virus will emerge from Wuhan in China in December 2019”. And the attempt to do so would have proved a distraction from the more important challenge of how to improve the resilience of public health services better to combat such an epidemic whenever it might arise. A similar argument can be made about the folly of trying to predict the precise moment when a financial crisis might occur compared with the crucial importance of ensuring that the financial system is sufficiently resilient to withstand the events that we saw in 2008.

Perhaps the most remarkable feature of the failure of economic forecasts is not that the forecasts themselves are largely useless but that they continue to be made. The fact that there is still a high degree of uncertainty about the nature and path of the current pandemic did not prevent the IMF from making yet another precise forecast of growth in the world economy in January. It is almost as if uncertainty is seen as something occurring in the past but not in the future!

Over the past year, we have seen many politicians, epidemiologists and economists only too willing to make forecasts in order to justify their policy positions. Their unwillingness to confront uncertainty has dangerous consequences. The pretence of certainty means that not only do we fail to prepare for plausible future outcomes but we ignore important information that might help us make better decisions. Nowhere is this clearer than in the realm of economic policy.

Uncertainty exists when we have incomplete information about the future, or even the present and sometimes the past. Some of this incompleteness we can resolve by looking up the answer in a book, or on Google and other online sources of information, if and when we need to know the answer. Other uncertainties we can describe as the outcome of a well-defined lottery — such as tossing a coin or rolling a die in a casino — where the possible outcomes can be described in advance and the probabilities of each of them are known. Uncertainties of these kinds I call “resolvable uncertainty”. They can be tamed by mathematical calculation. But they account for only a small fraction of the problems we confront.

In contrast, radical uncertainty is any uncertainty where we cannot enumerate a list of all possible future outcomes to which we can then attach probabilities. Most important personal, business, financial and political decisions are of this kind. They reflect unique situations in which we know something, but not enough to attach probabilities to a well-defined set of future outcomes. Although COVID-19 was neither the first nor the last pandemic to hit the world, it was sufficiently different from previous episodes to make it impossible beforehand to compute a probability of its arrival in 2020.

The global financial crisis of 2007-09 is another example of radical uncertainty. History is littered with banking crises, and so it was likely that at some point another such event would occur. And in the run-up to the crisis of a decade ago there were many signs of stress in the financial system. But those concerns, although they should have prompted action, could not have been expressed in the form of a probability that, for example, Lehman Brothers would collapse in September 2008.

The distinction between resolvable and radical uncertainty is similar, but not identical, to the famous distinction between risk and uncertainty which originated exactly one hundred years ago with two economists on opposite sides of the Atlantic — Frank Knight in Chicago and John Maynard Keynes in Cambridge.

Rather than digress, I simply refer you to the book which John Kay and I published last year entitled Radical Uncertainty. For my purposes today, I simply want to stress that the existence of radical uncertainty explains why both economic and epidemiological models have been misused and have led to an unfortunate degree of bogus quantification. To illustrate this, I want to discuss some of the important challenges facing the United States, Europe and the United Kingdom.

Each of these three areas faces their own distinct challenges. The biggest challenge facing the United States is the impact of China on the world economic and political system. The Great Decoupling between the two largest economies in the world is rapidly leading to a competitive battle for both economic success and global leadership. No doubt the new Biden administration will reach out to its traditional allies as the US enters a new stage of competition with its global rival. Whether it will be able to establish a peaceful modus vivendi with China remains to be seen — Biden has stated that the US would pursue "extreme competition" with China. Although neither country can see any attraction in extending this economic and technological competition into the military sphere, the unresolved position of Taiwan is likely to pose a serious problem. President Xi has been as clear as he could that not only Hong Kong but also Taiwan are purely internal Chinese matters. But the United States could hardly acquiesce in a forcible integration of Taiwan into China without losing its position as a major power in the Asian region. None of us can know how this will be resolved before the key date of 2049 when the People's Republic of China celebrates its centenary.[1]

Europe does not face quite such existential challenges. But its continuing energy dependence on Russia and the failure to resolve the debate over whether or not to construct a permanent fiscal union in the euro area illustrate the underlying tensions between the European Union as an entity and its constituent member nations. The failures of the European Commission in respect of the acquisition and distribution of vaccines are merely the latest example of the fact

[1] See the reports produced by Enodo Economics.

that the European Union remains a work in progress.

And the United Kingdom has now to face up to the adjustments implied by Brexit and the centrifugal forces on the four nations of the United Kingdom created by the experience of trying to cope with the pandemic. These challenges are more political than economic, but no less serious for that.

Despite their own unique problems, the three regions also share major economic challenges in common — and it is on these that I want to focus this evening. Two challenges seem to me most significant at present: first, how to handle the emergence of our economies from the damage created by the pandemic and, second, the urgent need to reallocate resources within our economies in order to return to a path of sustainable economic growth. In both cases I shall argue that the failure to appreciate the importance of radical uncertainty has been responsible for mistaken analysis.

2. No country has found it easy to manage the pandemic. Even those that appeared to be more successful in suppressing the virus last spring have struggled during the second wave. And new variants of the virus have sprung up challenging the modelling of the epidemic and the development of vaccines. The differences between countries aren't fully understood. Rich countries in Europe have apparently performed worse than many poor countries in Africa.

It seems the most effective measures to defeat the pandemic have actually been pre-scientific — the centuries-old remedies of separation ("social distancing"), quarantine, and the closure of borders. Our ability to treat the disease and develop vaccines are advanced; our ability to prevent transmission is little further advanced than in the time of Boccaccio when he wrote The Decameron.

More immediately, the debate on macroeconomic policy is confused because of a failure to be clear about the reasons for the size and speed of the economic downturn. Output has fallen because of government-mandated shutdowns and decisions by households to protect themselves by not going out to work and spending as usual. When a government curtails economic activity for reasons of public health it does not make sense at the same time to try to boost activity with monetary and fiscal stimulus.

The case for a large fiscal response is not to stimulate spending but to enable businesses and the self-employed to survive while maintaining employment. In Europe that support has been provided through furlough schemes and in the U.S. by relief for the unemployed and other transfers. Such support will be required until we escape the fear of large numbers of deaths from Covid-19, with all restrictions lifted and confidence largely restored. What is needed is temporary support for those affected by the immediate consequences of Covid-19, not a longer-lasting fiscal or monetary stimulus.

This difference between stimulus and support is important. Last March, central banks purchased large quantities of assets to prevent dislocation in normally liquid markets for government instruments. But those purchases were not reversed when the temporary dislocation ended. The result is that monetary aggregates are now growing very rapidly. In the U.S. M2 rose by 26% between January 2020 and January 2021; in the euro area, broad money measured by M3 rose by 12 ½ % in the year to December and over the same period broad money in the UK rose by over 13%. These are eyewatering numbers. In contrast, quantitative easing undertaken in response to the financial crisis simply prevented the broad money supply from contracting.

A failure to distinguish between temporary fiscal support for sectors of the economy affected by the health measures taken by governments and a generalised fiscal stimulus risks higher inflation down the road.

3. As the economy gradually opens up, the need for fiscal support will diminish. Attention should then turn to the need for a reallocation of capital and labour. For over a decade, an extraordinary degree of monetary stimulus has failed to generate growth of the industrialised economies and excess capacity has built up in some sectors, with a growing number of zombie companies, and excess

demand in others. Overall, investment has been insufficient to absorb global savings. This problem of "secular stagnation" has not been resolved by a massive stimulus to aggregate demand. What is required now is a reallocation of resources within most major economies to eliminate excess capacity in those sectors which expanded faster than could be sustained and to encourage investment in sectors with unexploited profitable investment opportunities. Even before the financial crisis, the pattern of demand and output in the world economy had become unsustainable. The price signals, especially interest and exchange rates, that might reallocate resources from unprofitable to profitable investments have been suppressed.

Escaping from a low growth trap is a different proposition than climbing out of a Keynesian downturn. And requires different remedies. In a Keynesian downturn, the aim is to boost aggregate demand. Temporary monetary or fiscal stimulus restores demand to its trend path and can then be removed. We are not overly worried about which components of demand respond to the stimulus. But to escape permanently from a low growth trap involves a reallocation of resources from one component of demand to another, from one sector to another, and from one firm to another. Low or even negative interest rates have permitted zombie companies to survive. And investment has been weak. In the decade following the financial crisis, gross investment as a share of GDP fell by around 2 percentage points in the industrialised countries of the G7. As a share of GDP, this is a large fall.

All this was true before the arrival of Covid-19. There are now two further reasons for focussing on the need to stimulate a reallocation of resources. First, businesses and governments alike have come to realise that resilience is just as important a feature of an organisation as efficiency. Survival matters. We learnt that lesson in respect of the banking system during the financial crisis, but we didn't apply it elsewhere. Resilience of healthcare systems, the risks posed by just-in time delivery systems, the susceptibility of economies to border closures, all suggest that economic activity will be organised in a different way in the future.

Second, the pattern of demand for a number of services, ranging from air travel to hospitality and entertainment, will change in ways that are impossible to quantify today. There will be a period of trial and error before we settle on a new pattern of spending and output. Take the example of the United Kingdom. Last year there was an extraordinary divergence between retail sales, much of it online, which saw a strong year on year rise of more than 5%, and spending on services which declined by over 15%. Amazon did not require fiscal support; retailers forced to close their shops and restaurants and entertainment venues forced to close their doors did. How far previous patterns of spending will return is as yet unclear. No doubt shuttered restaurants and theatres will re-open to welcome a wave of pent-up demand. But some change in the pattern of spending is likely to persist and that will require a reallocation of resources of labour and capital to support the new pattern of demand.

To bring about such a shift of resources — both capital and labour — will require a much broader set of policies than simply monetary or fiscal stimulus. The answer goes well beyond monetary and fiscal policies to include exchange rates, supply-side reforms and measures to correct unsustainably high or unsustainably low national saving rates.

4. From this discussion of how best to exit the pandemic and how to return to sustainable growth, I draw one main conclusion. The failure to appreciate the significance of radical uncertainty has led not only economists but also epidemiologists and politicians to make two main errors. The first is to focus on an imaginary "optimal" policy. Finding a solution that is good enough in practice is more important than searching for an unknowable optimum. The second error is to believe that models are descriptions of the world rather than abstractions which can provide valuable insights. The pretence that "it takes a model to beat a model", commonly espoused by economists, leads to an exaggerated view of what models tell us about the world and to a dangerous degree of bogus quantification. It was not only the IMF forecasts of growth in the world economy in 2020 that

proved so misleading; many of the epidemiological models also produced wildly inaccurate quantitative forecasts. Decision-making under uncertainty cannot be delegated to black box models which only a few, if any, so-called experts understand.

And the pretence of certainty leads to the mistaken view that uncertainty is always bad. In fact, uncertainty is the spice of life. So let me end on an optimistic note.

Radical uncertainty is the essence of innovation and entrepreneurship — and the rise in living standards which they make possible — and it is therefore strange that it has been ignored by the economics profession for so long. It is the driving force of a market economy when entrepreneurs discover and produce totally new products and new processes. In business, as in the arts and sciences, and in life, uncertainty and creativity are inseparable.

At graduation ceremonies I often meet students who tell me they are worried about their uncertain futures. I ask them to try to distinguish between the risks to a realistic path for their future, and the uncertainty which governs all our lives. If they could write down a list of their potential life partners with probabilities attached to each of them, a list of the careers which they might follow and countries in which they might live, also with probabilities attached to each one, they might lose any enthusiasm for the future because the excitement of the unexpected would have been eliminated. The joy of life comes from new experiences — whether meeting new people, discovering new places, new books and new restaurants. It is the discovery of those aspects of life of which we had no inkling that is the spice of life.

The great success of the human race has never been to forecast but to adapt to unexpected changes of circumstances. Never has there been a time when the need for us to adapt has been so great. With a spirit of humility and determination I am confident we can do it.

THOUGHTS AND REFLECTIONS
BASED ON LORD KING'S SEMINAL CONTRIBUTIONS

Rainer Masera *

ABSTRACT: *Starting from the identification of Brexit as a matter of radical uncertainty, Rainer Masera deals with three instances of unforeseen effects of the UK's exit from the European Union: namely, the paradox of 'red tape', the role of the City and the issue of the unity of the United Kingdom. In doing this, he adopts and explains the methodological approach of global uncertainty developed by John Kay and Mervyn King, while investigating the most recent developments in banking regulation and exploring the future avenues for EU integration.*

1. This webinar is the sequel of the extremely successful seminar organized by Federico Carli and his Association in Genoa on September 10, 2019 under the auspices of Banca Passadore.

On that occasion Mervyn made an extraordinary intervention on Brexit, Europe and the International Economy (King 2020), of the same depth and importance as today's speech, which we have been asked to discuss. We are here also to analyze events after Brexit and to elaborate on the Magnum Opus which has been published by Mervyn King and John Kay: "Radical Uncertainty: Decision Making for an Unknowable Future", The Bridge Street Press, March 2020.

The premises for the webinar were rightly set very high. But we had to pay

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a tribute to the *embarras de richesse:* interventions had to be very short. Key points were therefore just outlined – to be extended and hopefully more satisfactorily presented in these proceedings of the seminar.

I start with a reference to the previous conference and a provocation. The under title of the webinar was: Britain, Europe and America, as if Britain was no longer in Europe. Mervyn closed his Genoa Speech by stating "*nothing can ever change the fact that Great Britain is and continues to be in Europe".* I fully concur on this key point. I remind two historic facts.

Richard I of England (1157 Oxford – 1199 Chalus Aquitaine) is also known as Richard Coeur de Lion. He was a key Christian Commander during the third Crusade. His ships in the Mediterranean Sea had the support of the Republic of Genoa. This was marked by the Croce di San Giorgio which became the Cross of Saint Andrew in the Union Jack. Richard is at the heart of the Christian roots of Europe: he defeated Saladin the Muslim, but finalized a Peace Treaty with him for the open access to Jerusalem.

My second flash back goes to 1939 and to the secret pact between Ribbentrop and Molotov to divide continental Europe in two areas of influence under the control of Nazi Germany and the Communist Soviet Union, with the borderline cutting across Poland, which would disappear as an independent state. It was England - with Chamberlain and Churchill – which countered this design and entered into war with Germany and the Soviet Union. It is my contention that Europe as we refer to it now, and the European Union, would not exist without the decision taken in London and the stubborn determination of Britain.

2. I take a leaf out of K&K. Competing claims of leavers and remainers on the economic/social/political consequences of Brexit are subject to profound unforeseen and unforeseeable changes. This is also because *radical uncertainty prevents optimizing behavior.* It is already evident that I am strongly sympathetic to Mervyn's ideas and that I am also a convinced anglophile.

After my degree in Statistics in Rome University, I had the extraordinary opportunity to study in Cambridge with Nicholas Kaldor and in Oxford with John Hicks; under John's guidance I wrote my doctoral dissertation published by the OUP and became Research Fellow at Linacre College. Today I wonder whether the EU recognizes in the "internal market" the validity of my Oxford D.Phil.! In this mould of mind of uncertainty I make reference to three instances of perhaps unforeseen effects of Brexit.

3. One of the key arguments of leavers was the exceedingly costly amount of red tape of the Brussels bureaucracy. But it is now being discovered that the single market only existed from the inside. With Brexit companies and individuals in the UK are finding that from the outside there are still 27 sets of national rules to comply with. British exporters to the EU are facing the expensive new reality. UK trade is adversely affected because she relies more heavily on the EU imports and exports than vice versa. Half of UK imports/exports come from/go to the EU, while only 4% of EU exports go to Britain and 6% of imports come from Britain. The current situation may be due to short-term bottlenecks and improve over time, but "the new bureaucracy" led Ben Fletcher (2021), Director of Make UK, to say at the end of January that "*Brexit is like Dante's Fifth Circle of Hell for importers and exporters".*

More specifically, headlines and strong political reactions underline what has been called the "war of parcels": the cost and delays of sending goods across the Channel.

The relocation of productive premises from the UK to the EU is gathering momentum. The often cited opposite relocation of Cadbury's chocolate production to Bournville from Bludenz (D) is not necessarily a "good sign". It may anticipate long term difficulties of producing for the UK domestic market from the EU. More generally still, three intertwined issues require close attention: the infrastructures of technological transfers with the leading (and pervasive) role of Germany and France; the reframing of global supply chains – as a consequence of the Covid Pandemic - and the interactions with the quest for new and different manufacturing platforms among the EU, China and the United States.

Industrial policies are coming back and they concur in reshaping global value chains in international trade. National defence and security are acquiring crucial importance in the EU, but I anticipate that it will not be easy for countries outside the Union to fully participate as equal partners.

4. The Governor of the Bank of England Andrew Bailey (2021) in his Mansion House speech has called EU demands for City institutions to comply with Brussels regulations unacceptable, as the UK embarks on very difficult talks with the EU on these crucial subjects. Bailey affirmed that the EU had granted equivalence status – a mutual recognition of each side's regulatory standards – to Canada, the US, Australia, Hong Kong and Brazil, but it was instead insisting that the City should turn to EU rules.

According to Bailey the EU would grant equivalence status to the UK if she agreed to change its rules in line with changes in the EU: this was hardly acceptable and would imply a serious risk of fragmentation.

The frictions and uncertainties after Brexit are already taking their toll for the City, which no longer represents the traditional trading hub for the European financial markets. In January 20-21 for the first time Amsterdam stock exchanges – Euronext, CBOE and Turquoise - surpassed London in terms of volume of exchanges. To recall in 2020 on average the daily volume of trade in London was €17.5 billion, while in Amsterdam it was only €2.6 billion. In January 2021 Amsterdam recorded daily transactions of €8.8 billion compared to 8.6 billion in London (see Chart 1).

CHART 1

Of less importance from a quantitative point of view, but equally significant, is the loss of financial activities from London to Luxembourg which is booming in terms of income and job attraction.

All this is especially disappointing when the EU and the Euro Area require a well-functioning Capital Market Union.

5. According to opinion polls – which are clearly subject to radical uncertainties! – the majority of Scottish voters are now in favor of a Scottish State, which would be part of the EU. The issue of Ireland is extremely divisive, even with the possibility of "a United Ireland". So Wales would remain the only stronghold of the UK.

"The United Kingdom has now to face up to the adjustment implied by Brexit and the centrifugal forces on the four nations of the United Kingdom….These challenges are more political than economic, but no less serious for that" (King, 2021).

Risk and radical uncertainty: implications for the "science" of economics

I come now to K&K's monumental contribution to economic theory and policy, and to the related topics of risk, uncertainty and econometric analysis.

It is impossible here to discuss in depth these fundamental issues (I am still studying - and constantly learning from - their 550-page book). The issues of measurement of risk and of economic/econometric models have been long discussed. I broadly agree with the main tenets of K&K. Formalized models of decisions based on stochastic processes – frequentistic or Bayesan – are often deceptive. A corollary is that the elegant and formally sophisticated econometric "evidence" and forecasting models can be inherently flawed because there is uncertainty about the underlying statistical distributions.

Risk, uncertainty and ergodicity

The distinction between risk and uncertainty is well known and is due to Knight ("Risk uncertainty and profit" 1921). In the same year Keynes wrote an equally important book ("A Treatise on Probability" 1921) which leads, through different arguments, to broadly similar conclusions. Let me also add the reference to De Finetti who argued (1928) that "objective probabilities do not exist by definition".

Many years later John Hicks ("Causality in economics" 1979) showed the limits of applicability of probability calculus. He argued that in a world of uncertainty and changes in behavior the assumption of ergodic probability distribution cannot be accepted. The probabilities that existed in the past are not necessarily the same which will apply in the future. To recall, ergodic theory was developed by physicist L. E. Bolzmann at the end of nineteenth century to define a random process which after its initial evolution converges to a stationary phase. I learned these fundamental lessons many years ago in the School of Statistics of the University of Rome. As K&K explain in their book it is not by chance that this analytical approach continues to be disregarded/forgotten by the mainstream "economic science".

I use the words of John Hicks: "*When we cannot accept that the observations, along the time-series available to us are independent.....we have, in strict logic, no more than one observation, all of the separate items having to be taken together. For the analysis of that the probability calculus is useless; it does not apply...... I am bold enough to conclude, for these considerations, that the usefulness of statistical or stochastic methods is a good deal less than is now conventionally supposed .....We should always ask ourselves, before we apply them, whether they are appropriate for the problem in hand. Very often they are not".*

Other illustrious economists/statisticians gave important contributions to these lines of thought over the years. Let me recall here the pathbreaking work of Paolo Savona on the correct use of mathematical models and econometric analysis in economics (Savona 2010). K&K's work is a new milestone.

It is not easy to redress the imbalance. Economists have often become mathematical modellers and acritical econometricians in the vain hope of transforming economics in an "exact" science. This can be epitomized by the generalized use of DGSE models also for econometric research, economic forecasting and policy making, even if the "golden age" of economics with rational expectations, full information and self-regulating markets cannot be taken as a meaningful benchmark.

As indicated, the methodological approach of global uncertainty developed by the K&K has major implications for all aspects of economic and societal analysis. I focus attention here on two areas of special and topical interest: resilience analysis and banking regulation.

Resilience and uncertainty

The concept of resilience has moved from a highly technical framework to a buzzword also in economics. The US National Academy of Science – which pioneered interdisciplinary work in this key area – defined resilience as the "ability to plan and prepare for, absorb, recover from, and adapt to adverse events".

The ability to cope with potential adverse contingencies represents a major challenge for risk managers. But the approach cannot be based on the wrong belief that uncertainty is amenable to being "encapsulated in fixed numerical risk weights loosely based on historical experience" (K&K 2020). Resilience analysis "delves into the unknown, uncertain and unexpected at the scale of systems rather than individual components" (Linkov et al. 2016).

Risk-based capital regulation of banks

The issue of risk vs uncertainty and of the use of econometrics have acquired primary importance for banking regulation. K&K's ideas deserve therefore great attention. Risk based capital ratios in banking are intertwined with regulatory frameworks and notably with the Basel capital standards which represent the Copernican revolution which took place in 1988 (Basel I). Risk weighted assets (RWA) are a transformation function of assets into a combined size-risk metric. The process crucially depends on the risk measurement methodology adopted[1], because the combined size-risk metric should represent a measure of the average risk intensity per unit of assets, at time t. A static framework is not correct, because risk categories are constantly changing and banks' asset portfolios are continuously adapted to market developments, independently of regulatory constraints.

Capital requirements are of fundamental importance. The concept of economic capital is applicable to all firms and not exclusively to banks. The following considerations must not be interpreted as arguments against appropriate/high capital cushions, but they should make it clear that sophisticated risk modelling based on inadequate assumptions leads to misleading results.

- Exogenous (fundamental) risk is the risk driven by "news" –

[1] The narrative and explanation by K&K (2020 pp.310-312) of the rescue and nationalization of the UK bank Northern Rock in 2007-2008 is of extreme interest. At the beginning of 2007 the bank - according to the deceptive Basel capital adequacy models – had been the best-capitalized bank in Britain.

unanticipated changes in economic fundamentals (game against nature) – i.e. risk obtaining in perfectly efficient financial markets;

- endogenous risk is the "unexplained" volatility due to non-fundamental factors such as: perverse incentive structures, serially correlated belief structures and risk control methodologies, trend and herding behaviour;
- systemic risk is the risk encountered when stress exceeds the coping capacity of the system, which enters a state of overload leading to breakdown. Market failures and irrational behaviour can occur and amplify the likelihood of breakdown of the financial network;
- in times of crisis, endogeneity becomes of paramount importance if agents become more homogeneous in their strategies precisely because they use similar (faulty) risk modelling. As the crisis develops, the processes driving the underlying data undergo structural breaks;
- strong interactions and converging behavior of economic agents change the "fundamental" statistical distributions characterizing markets under normal conditions. More specifically there can be a shift from normal-shaped distributions to truncated power laws (heavy tail distributions/extreme value theory). Volatility is magnified, leading to "tipping points" and to extreme events;
- endogenous and systemic risks do not require the assumptions of irrational markets, incomplete information and behavioural economics, as suggested for instance by Haldane and Madouros (2012). It would be interesting to know K&K's position on this issue. In any event, the technical assumptions behind Basel models are questionable (risk neutral pricing; capital requirements depending on the risk of each loan, without reference to the entire portfolio and dependence across exposures being connected with one global risk factor).
- When endogenous risk sets in credit and securities markets drift together. Liquid asset can become suddenly illiquid. Solvency and

liquidity risk become intertwined.

- When financial contagion occurs, critical points/phase transitions must be taken into account. It is here that the traditional probabilistic assumption of stationarity becomes especially dangerous. When negative shocks are relatively small densely connected networks are more stable. However, when the shocks become sufficiently large dense interconnections become a destabilizing mechanism, which reduces resilience and implies more fragile financial systems (for an analysis of these points and related references see Masera 2018 and 2020a).

An important new debate has opened on the issues expounded in this paragraph. Some have expressed the view that the dichotomy between risk and uncertainty can be overcome by the use of Artificial Intelligence and large Data Structures. The argument is that AI algorithms aptly developed and tested will narrow/eliminate “endogenous” deviations of human behavior from axiomatically rational standards. Important exponents of these views are Kahneman and Savona.

Others – and notably K&K – are critical of this approach, mainly on three grounds. To start with, the intrinsic differences between human and AI are identified and underlined. The relevance of radical uncertainty in explaining the impossibility for computers to apply mathematical reasoning to all possible states of the world are underscored. It has also been argued that AI models could even lead to cascades with endogenous prices: the propagation mechanisms of risk generated within the financial sector by the interactions of market participants would be amplified and create feedback loops.

6. At the cost of oversimplification, three principal strands of analysis inform the opus of K&K (2020, pp.16 e 17). As already indicated, the common themes are the distinction between risk and uncertainty and the circumspection in the use of mathematical/statistical models in economics. The main propositions can be summarized as follows:

- The first is the issue of “non stationarity”. This is a broad concept which encompasses behaviour of individuals and groups, where intelligent responses are intertwined with subjective judgements. It goes therefore beyond economics, statistics, finance and applies to politics and society.
- The second is the distinction between rational and optimizing behaviour. Evolutionary rationality is embedded in human responses to the complex reality and the challenges of uncertainty.
- Third, communications shape decision making. Narratives (extensively used in the book) frame thinking and behaviour. Market economies are intertwined with the social context in which they operate. They can function only by developing networks of trust, cooperation and coordination.

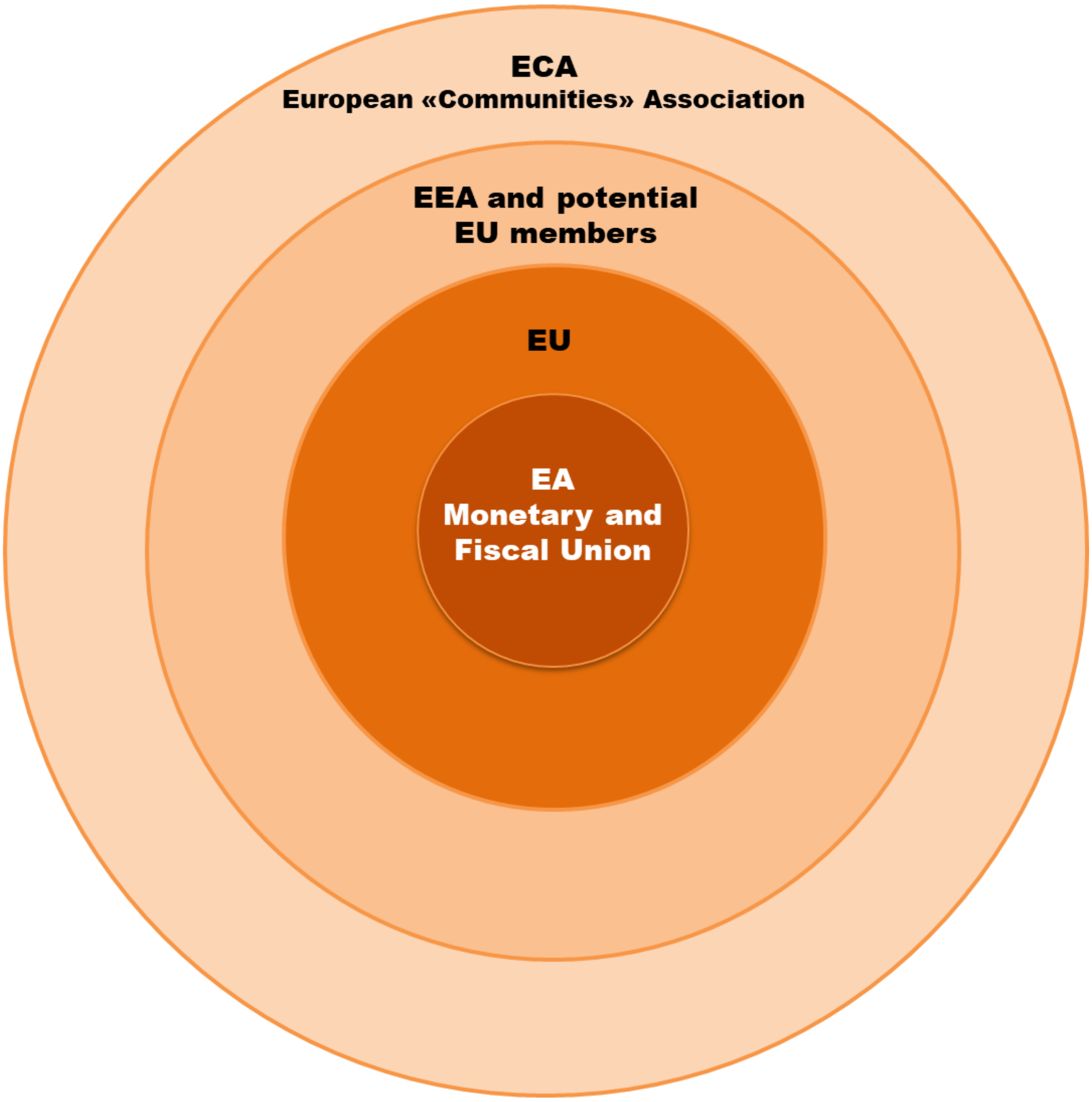
These three points - and notably the last one - form the basis for some proposals on the forging of new links between the UK and the EU presented in the following and concluding paragraph.

7. King in his speech today made reference to a scenario which did not materialize: an EU of concentric circles, to which the UK would have continued to belong, as a part of an outer circle, with respect to the Eurozone and the euro.

- The approach has common ties with the original model of European integration: the Communities’ scheme (ECSC, Euratom….), inspired in 1950 by Jean Monnet and Robert Schuman. This process of integration is based on decision making of an evolutionary and open nature, as against a one-size-fits-all model. This framework is also consistent with the seminal contribution to the reconstruction of Europe offered by Winston Churchill (1946). He was the forerunner of a flexible approach to integration, which was the basis for the creation of the Council of Europe in 1948.

- The “New Communities” would represent enabling factors to set up distinct international organizations - based on supranatural integration with the states that compose the wider circle – by pooling different levels of national powers (Chart 2).

CHART 2 — *Concentric Europe: a blueprint*



Acronyms:

ECA = European “Communities” Association

EEA = European Economic Area

EU = European Union

EA = EuroArea

Source: Author

It can be recalled that this approach had been further developed – without success - by President Mitterrand in the late 80's and by President Macron in 2017-18.

This model retains significant potential to allow for flexible agreements on areas of mutual interest (defence, antiterrorism, health, environment/energy, trade, capital markets infrastructure…..). A Communities' approach would also allow the UK full participation in the European Investment Bank Group. Great Britain would therefore be an active partner in the EIB's huge program of investment in physical and human capital towards the digital and the green revolutions: the approach would also permit in depth participation to the construction of the European Capital Market.

- A scheme or a dream? A model of this type would reopen the way for a flexible integration of the UK in Europe (Bremain), where she does belong.

The Communities model has been recently reaffirmed by Velo (2020) and was set forth for the preparation of the Conference on a new Europe envisaged in 2020 in Paris, but postponed as a consequence of the Covid 19.

- At the same time this flexible approach would permit closer integration among countries of the Euro Area towards a model of political, fiscal and monetary union, as had been originally envisaged by President Mitterrand and Chancellor Kohl (1990) to represent the necessary coronation of monetary integration. It is a scheme on which I have been working in the past few years (Masera 2020a) – consistent with the Next Generation EU policy decisions – which would envisage the creation of a common "real" public debt: EU Real Infrastructure Securities (EURIS).

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THE GHOSTS OF OUR TIMES

Giulio Terzi di Sant'Agata [*]

ABSTRACT: *Starting with the identification of our time as an age of 'radical uncertainty', the author explores the geopolitical instability that, as of early 2021, was determined by the ghosts of the pandemic, the economic predicament, China's ambitions of global leadership, radicalization and terrorism. While focusing on the challenges faced by the West, he points out the main areas in which the leaders should focus post-Brexit. Other than proposing the conceptual tools whereby global problems should be addressed and understood, he also discusses the strategies to overcome them.*

1. Uncertainty is a crack in our beliefs. It underlines the overall absence of reference points to look at; and suggests the dramatic loss of a solid base on which to build.

This time is folded and shaken by the pandemic, by economic predicament, and not only by that. Two other ghosts are wandering in the West: on one side, as recognised by the 2019 London NATO summit, European and the Atlantic security, is increasingly affected by China's ambitions of global leadership in the most critical areas of economy, science, technology, military capability and readiness. Some sinologists are even convinced that the Chinese Communist Party aims at assimilating the West - and its more economically and strategically interesting regions - with "unrestricted warfare" of political and economic tools of influence.

The other ghost is radicalization and terrorism. The most dangerous are the Islamic State terrorism, with its related affiliations, and the Shia fundamentalism, directed by Iran and its terrorist organizations such as its intelligence apparatus

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[*] Former Italian Minister of Foreign Affairs.

(MOIS), Hezbollah and other groups and militias. Against this scenario a turning point was last 4 February when an Iranian diplomat, Assadollah Assadi, proven to be a terrorist leading a deeply rooted Iranian terrorist network in Europe, was sentenced with 20-years jail term by a Belgian Court in Antwerp. What did emerge from the trial showed that the Iranian threat to the European security is widespread and ready to strike.

Democracy dies in darkness and silence, a prolific habitat where Uncertainty can blossom unchallenged. Western leaders have been too often loath to admit that they were asleep for too long, in some situation giving a “quirky and kooky” answer to issues that instead demand - and demand - zero tolerance and resolute condemnation from all the Countries which are ruled by liberal democracies. Today is no longer time for “sleepwalkers in chief”: we need vision and strategies.

The first signals coming from Washington are positive, with President Biden's decision to seek and pursue a closer cooperation with European partners. On the other hand in Europe, despite Brexit, there are reasonable arguments to bolster the existing alliances and to form to create new ones on the most important issues, above all in the realm of Big Data, Defence, Foreign and Security Policies.

The Polish Sociologist Zygmunt Bauman wrote that "*uncertainty is the natural habitat of human life, although the hope of escaping it is the engine of human activities*". Therefore, the most powerful weapon we have in the West to fight this asymmetric war is a careful optimism of the will, based on respect for Human Rights and the affirmation of the Right to Know, a lofty pillar able to reconstruct the solidity lost during the liquid season of the post-modern era and even more today, during a post-global age become more and more volatile. The West under radical uncertainty is faced with the gravest of challenges: however, the thirst for Democracy and Knowledge has always characterized its history, every step up the ladder of Science and Humanity.

The Age of radical uncertainty

Age of radical uncertainty is also the Age of power-shifts dramatized by Covid–19. All over the world health, employment, sustainable growth are top priorities for Governments.

However, it is only among the Countries ruled by liberal democracies that government's accountability is checked, called into question, submitted to free and fair elections.

It is only among the Liberal democracies that responses to the pandemic are scrutinized by Parliaments, Judges, Institutions and media.

Britain, Europe and America

The way Britain, Europe and America over the last 13 months have faced the Covid crises and the way they have tried over the last 4 years to manage a growing "geopolitical disorder" have often been divisive and contradictory.

However, a new awareness about the need for convergence and common purpose is now emerging in Washington, London and in the EU.

That combines with the election of President Biden, with a vast support obtained by Mario Draghi's "institutional government", and with some promising adjustments between Brussels and London. The Christmas Eve Agreement struck by PM Boris Johnson and Ursula von der Leyen was a reasonable end to a divorce which could have been a nightmare.

If elements of uncertainty remain, for example in the "vaccine crises", in unresolved issues about the EU single market (financial services, automotive, digital market), a closer cooperation is needed -and it is needed now- especially and above all in the realm of Foreign and Security Policies.

That is because diverging positions, or a lack of clarity to say the least, between the UK and the EU 27, among the 27 themselves, and between Brussels and Washington are self-defeating for western Liberal Democracies. The cracks in the Euro - Atlantic architecture are worrisome because they become even more visible when our fundamental political, security, economic values and interests are challenged by Russia, China, and even Iran.

Euro-Atlantic collective security and cooperation

While various aspects of the UK - EU relations will probably remain unsettled for some time, I believe there is a dimension where the seriousness of challenges to our collective security is already pushing toward a much closer convergence. That is an area which has not been sufficiently addressed yet, especially during the pandemic.

Defence

In the post Brexit, London will have to decide how involved it wants to be in EU Defence efforts. It seems likely that the country's aim will be to have flexible structures that allow it to plug into European foreign and defence policy where doing so is in its interests.

In November, Prime Minister Boris Johnson made headlines when he announced that the Ministry of Defence would receive an extra £16.5 billion over four years on top of its annual budget, set at £41.5 billion for 2020.

This is the biggest British defence investment since the end of the cold war. The decision is particularly noteworthy because it came on the back of the chancellor's decision to cancel the planned comprehensive spending review in light of the pandemic, and to award all other departments only a one-year funding deal. The prime Minister said that he had decided to give the Ministry of Defence an exemption to "end the era of retreat".

Defence cooperation is one of the main areas in which, facing an uncertain future due to Brexit, the United Kingdom will need to reorder its relationship with the European Union.

The UK will remain in various bilateral and multilateral alliances with EU member states (NATO, the Joint Expeditionary Force, the Combined Joint Expeditionary Force with France).

The UK’s and the EU's geographic position belongs to the same strategic environment. They have same fundamental values and ideas. Since the Brexit referendum, the EU has put out an impressive array of projects and programs, from Permanent Structured Cooperation (PESCO) to the European Defence Fund, to the more debatable goals of an "European strategic autonomy" which Chancellor Merkel and President Macron had flagged in part as a reaction to President Trump apparent lack of interest in NATO and, perhaps, in the European security as well.

The EU’s new budget, the Multi-Annual Financial Framework, is the first to include a section on defence. Brexit made this possible by removing a heavyweight opponent of such efforts, the UK.

Great Britain will now have to decide how involved it wants to be in these and other EU efforts. It seems likely that the UK’s aim will be to have flexible structures that allow it to plug into European foreign and defence policy where doing so is in its interests.

In particular, the creation of a European Security Council might be a good way for the UK to retain influence on European foreign and security policy. The EU has now a general condition for non-EU countries to participate in individual PESCO projects.

British firms have an economic interest in being involved. And it may make strategic and financial sense for the UK military to play a part in the development of at least some big-ticket military items: for instance, it is conceivable that the Future Combat Air System, a Franco-German-Spanish fighter jet project, could combine with the British-Italian Tempest.

It seems likely that the UK would want to ensure that it had some power to shape these projects. Hence, the UK needs EU member states to be supportive.

According to the experts ECFR polled over the last couple of months, the UK sees the two EU heavyweights, France and Germany, as the most essential partners on defence questions, followed by Italy and the Netherlands sharing third place, and Poland and Romania sharing fourth place.

Furthermore, the UK and France have very strong defence links ranging from Saint-Malo to Lancaster House. And French President Emmanuel Macron has called for more inclusive European defence projects that would include the UK, such as the European Intervention Initiative and the European Security Council respectively. However, when it is seeking supporters in the EU, the UK would be well-advised to look beyond the big countries.

The political, economic and security environment in the Euro-Atlantic area after the Agreement reached last 24 December may not only open up new opportunities for intensifying EU-UK cooperation in Defence programs both at the multilateral level and bilaterally. This is especially relevant for Italy, given that important partnerships between IT and UK groups amount to a big share of the Italian Defence industry, around 20%.

Science

Last December Agreement keeps substantially intact the scientific cooperation between the UK and the 27 EU Member States because London will continue to be part - as an associated member- to Horizon Europe 21-27, funded with 95 bln €. In the 2014 - 2020 financial framework the UK was number 2, with 7,2 bln €, second only to Germany, for funds obtained.

London will also continue to be part of Copernicus: a network of satellites for earth and climate research. As it will continue to be in ITER, for nuclear fusion. There also, as we know, some drawbacks: such as the British exit from Galileo.

For the next generation of Galileo satellites, the European Commission has handed down contracts worth a total of € 1.47 bln, signed with the continent's two dominant space firms Airbus and Thales Alenia Space.

After Brexit, UK has a status of "third country" that excludes its manufacturers from taking on sensitive work (such as payload integration) and developing the most tricky elements of what EU regards as a strategic security programme. So in order to keep London at the cutting-edge of the latest advances in space technology, UK Government has seek a home-grown alternative to Galileo announcing a $ 500 ml investment to acquire the satellite-telecoms network OneWeb, in tandem with leading international operator Bharti Global.

This investment underlines Government's commitment to the UK's space sector in the long-term and above all it makes possible a comprehensive and positive bolstering of EU's-UK's satellites in the global competition with the Chinese-giant BeiDou (which has just completed its navigation network).

As far the overall relation between Space Economy and Scientific Research, space will be increasingly pervasive: from 5G to connected mobility, from smart cities to AI, the role of both civil and military satellites it's going to become more and more fundamental in European geopolitical strategies. In post-Brexit-Europe, France is the candidate leader for Defence and Security Policy, as demonstrates the very recent decision by NATO to install a Center of excellence for space systems in Toulouse, where the Galileo's encrypted signals for military use (called PRS) will be managed by the "Commandement de l'Espace de l'Armée de l'Air".

Financial services

Less clear is the picture for financial services. The main question is whether the EU will grant Britain further "equivalences". That notion covers fewer market functions then the "passporting" rights given to British firms in trading freely all over the EU. And it can be withdrawn with 30 days-notice.

The EU demonstrated in its dealings with Switzerland, note UK observers, that equivalence can be used for political leverage. Last November Britain granted the EU a wide range of equivalences. But so far, the EU has granted only a time-limited equivalence, under the assumption that the area of financial services should be monitored closer than others: to avoid "unfair" advantages, which could make of London a sort of European Singapore.

Negotiations are ongoing. In London some suspect that Brussels is going slowly because it tries to attract as much business as possible. In fact, the trend over the last for years could be the reason. But the EU point is that equivalence is related to divergence, and that can be increased by deregulation in the UK. However big firms in the City are keener on equivalence than divergence. Europe is the source of 1/3 of the financial services export business, and - furthermore - EU rules were shaped with UK significant input: motives which point to some reasonable optimism. A common understanding in the financial services would be an important step in the consolidation of an Euro-Atlantic influence at the global level.

Two other inter-related issues will require a common, firm and credible platform to be established between Brussels and Washington: global trade (norms and Institutions); overall relations with China.

Global trade

The pandemic has put wind in the sails of protective instruments: "Buy European", suggested in France; "Buy American", announced by President Biden; "reshoring policies" needed to react against the dangers of a Chinese techno-nationalism. In the framework of "EU Trade Policy Review" launched last year, there is a debate on how to fill the Commission's concept of "Open Strategic Autonomy". It is not only a debate between free-traders and protectionists.

It is also about a new awareness on climate change, social issues, national security. And that happens in a post Brexit environment adding to uncertainties.

China

There is little doubt, among the many well-informed commentators and analyst who put their focus on relations with China, that "The right answer to Xi is a joined up China policy", as Philip Stephens wrote for the FT last Wednesday: "The new (Biden) Administration will struggle to get Europeans to adopt a more robust approach... The EU scarcely send an encouraging message when it rushed through a unilateral investment deal with China before Mr. Biden's inauguration... German chancellor Angela Merkel, the EU's mercantilist - in - chief, is standing down this year". There are few doubts that the Chinese acquisition of important firms in strategic domains, in Europe and in Italy, is also a threat to common security. Even more so after the western productive network was so weakened by Covid-19.

From Washington the good news for a possible common platform on China between Americans and Europeans is the appointment of Kurt Campbell, a formidable figure with long experience in Asia, as the White House “Asia tsar”. Discussions between Washington and Brussels on the Comprehensive Agreement on Investment (CAI) will certainly be high in the Euro-Atlantic Agenda. In the domain of Scientific Research, as some commentators note, China is dangerous because it has adopted the American idea of Science as a driver – or rather as the most powerful driver – for growth. “*Economies do not exist in a vacuum*”, as David Goldman wrote in his recent book “You will be assimilated”, and it’s therefore evident that the multiplication of Chinese power factors is directly proportional to technological and scientific development.

The Strider Report “Quantum Dragon”, published in November 2019, spells out how China has been exploiting American and above European funding to leapfrog western Democracies in dual-use quantum technologies. This worrisome purpose is clear in what Pan Jianwei, the guru of China’s scientific assimilating strategy, has brazenly put in evidence, in a bold way: “*we’ve taken all the good technology from labs around the world, absorbed it and brought it back*”.

BREXIT AND THE REST

Giulio Tremonti [*]

ABSTRACT: *Linking uncertainty to past and current global scenarios, the author analyses Brexit as the perfect paradigm of uncertainty, comparing the latter to the Schism of 1539, while acknowledging the impossibility of a "real" separation between the UK and the EU. Using a macro- lens, he looks at the international framework as affected by this anomie, bending the world towards a terra incognita where there are no effective resolutions, just "homeopathic" treatments. In his view, the global radical uncertainty is exacerbated by the rise of China and the pandemic.*

1. "*Brexit*" is a perfect paradigm of *complexity* and *uncertainty*.

A) "*Brexit"* is, more or less, a new edition of the *"Schism"* of 1539.

"Schism" was carried out to overcome the restrictions imposed by the *Roman Church*, in order to take advantage of the Atlantic spaces that were opening up to commercial traffic.

"Brexit" now overcomes the legal restrictions imposed by *Brussels*, to take advantage of the financial opportunities offered by contemporary anarchic *globalization*;

B) some other shadows, coming from the past.

London is a paradigm of a *global megalopolis.*

"*Downton Abbey*", on the contrary, is a successful *TV drama* based on *nostalgia for the past,* plus a reaction of the countryside against the *"global*

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[*]President of Aspen Institute Italy.

London";

C) in the "*Ventotene Manifesto*" (1943) a *prophecy* is written: "*in the end… Europe will prevail... all the nation States will lie on the ground like carcasses*".

Via referendum on "*Brexit*", the United Kingdom *exits* from the EU.

But the EU could enter into the United Kingdom, via a possible disruptive "*counter-referendum"* on *Scotland*, so starting a dangerous "*lose-lose"* process.

More generally, today in *Catalonia,* tomorrow in *Scotland,* the old *"European*" prophecy of the "*Ventotene Manifesto*", on the dissolution of nation States, could be true, also because the new EU is becoming more and more attractive.

Anyway, my personal sentiment corresponds with the sentence of Nietzsche: "*Europe without England does not exist*!".

By the way, today, the United Kingdom is out of the European legal architecture, but in Brussels, inside the "Palace", they continue to speak English, and not because English is the official language of Ireland and Malta!

But… because England is still in the culture and in the hearts of the Europeans!

2. Too quickly, in just three decades, we went from "*Liberté, Égalité, Fraternité*" to "*Globalité, Marché, Monnaie*".

"*Wealth without Nations*", and "*Nations without Wealth*", this was the title of a book that I wrote in 1992.

At global level, the dominant dimension is that of *anomie.*

Below, we have an *excess of* useless *local rules.*

This *global institutional asymmetry* pushes the world into a dangerous "*terra incognita*".

First crisis exploded since 2007.

The policy, the treatment applied since then has been, and is, purely *homeopathic*: "*simul cum simile"*, adding money to money, debt to debt.

Today it is as if Picasso paints his metaphysical forms on the canvas of contemporary finance.

The unit of account suddenly went from *billion* to *trillion.*

The split between *finance* and *economy* now evokes, on a larger and more modern scale, risks anyhow similar to those that in 1720 led to the crisis of *John Law's proto-global system*.

In addition, today, we see two other emerging causes of *global radical uncertainty*:

a) with the new Chinese Presidency, the emergence of China from its pure mercantile dimension to a new tentative dominant *global* power;

b) the *pandemic*. It was written: "*The coronavirus pandemic is a Human tragedy of potentially biblical proportions".*

Not only a "*human tragedy*".

The Bible is a fantastic archive of myths and legends:

"*Paradise lost", "The great flood", "The tower of Babel"*.

Babel is the right myth, today.

Men challenge God, the tower reaches the sky, God reacts removing men's *single language.*

Today, in place of single language, *single thought* is removed, as a dramatic effect of the pandemic.

The mental Meccano of globalisation has been broken, its software has been hacked, with effects extended to mental, social, economic, political, geopolitical effects.

The coronavirus vaccine exists, we still don't have a vaccine against all these kinds of new negative effects.

Ten years ago, in the middle of the financial crisis, my *copyright* was: it is like being in a *videogame*, a monster appears, you defeat it, you relax, but immediately after that another monster appears and it is bigger than the last one.

To escape from the videogame, in 2009, during the Italian presidency of the G7, a proposal for a "*Global Legal Standard*" was formulated: the draft of an international multilateral treaty.

A treaty based on the transition from "*free trade*" to "*fair trade",* setting forth rules on the "*production"* of goods and services.

The GLS was approved by the OECD Assembly, but was defeated by the ideology and the power of the Financial Stability Board.

Art. 4 of GLS envisaged "*environmental and hygiene rules*"… ten years ago!

Today the videogame continues: the present world is indeed the perfect *habitat* for other new *monsters.*

Something must therefore be attempted: to come back to the suspended GLS or a new version of *Bretton Woods,* or other.

The title of the book of Lord King is *The End of Alchemy.*

Alchemy, something that evokes Isaac Newton, his ancestor in Bank of England or there abouts!

Also for these reasons the ideas expressed in the book we are discussing today are of extraordinary interest.

BREXIT AND COVID-19: A LIBERTARIAN VIEWPOINT

Daniele Capezzone [*]

ABSTRACT: *What is Brexit? In answering such question, the author investigates the European Union's reaction to what he believes was not a merely referendum or election but an 'intellectual vision'; i.e., a journey to reinvent the UK as a global superpower. In doing this, he criticises the EU's apparatus, while proposing three points for the renegotiation process. When it comes to the current scenario, he warns us about the danger of a "post-Covid socialism" to be overthrown by a libertarian point of view.*

Thank you for this opportunity to learn from Lord King's experience and vision.

Four years ago, together with my friend Federico Punzi, I wrote a book about Brexit (*Brexit, the challenge*). It was labelled as a "pro-Brexit" book, and of course it was, in a way. But, above all, il was an "anti-anti-Brexit" book, that is to say a book oriented against the "professional opponents" of Brexit.

There are at least two bizarre situations at the heart of the Italian and European debate about Brexit.

On the one hand, there are so many politicians, commentators, experts and pundits, who are always skeptic on any other topic, who think that everything could be subject to their critical scrutiny. But, all of a sudden, when it comes to the Eu, it's a sort of dogma, it becomes a matter of religion: they reject any objection in terms of anathema and superstition. You either worship at the altar of the Eu orthodoxy, or you are regarded as a monster.

On the other hand, they are always talking about diversity: they love saying that diversity is a blessing. But when they find something really different (for example, a different opinion), they are inclined to use the hammer of uniformity.

[*] President of Mercatus Institute.

It must be a sort of Orwellian inversion: they say “diversity”, but they mean “homogeneity”.

Let’s come to Brexit from my perspective. It is not only a referendum or an election. As Allister Heath wrote, it is an idea, an intellectual vision, a long journey to reshape the British economy and society, to reinvent the UK as a global superpower, as a hub capable of attracting resources and investment in a competing world.

There is a simple and painful truth to cope with. Inside the Eu, there have been two tendencies for decades: a pro competition one, and a centralising one. The second one has prevailed, unfortunately.

Considering this, the British electors decided to trade freely without amalgamating politically, without accepting a European superstate, a European identity, and a Franco-German project designed in Berlin, Paris and Brussels and then imposed to all of the others.

After the British referendum, there were two possible reactions from Brussels. The first one was the reaction that we unfortunately had to see: a furious reaction treating London as a rebellious province. Janet Daley was right in saying that there are three kind of organisations which threaten their departing members: mafia families, secret societies, and religious cults. Now, incredible as it may seem, we must add the EU…

Someone else, on the other side, said that Brexit would trigger inappropriate and even violent institutional behaviours: in a way they were right, but they were wrong about the side of the Channel where this would happen…

The second possible reaction is the one I wish we could see in the future: accepting Britain as the best possible neighbour. And we should also use Brexit as a blessed opportunity to trigger a renegotiation of the existing European rules among the 27 remaining members.

To make an example, let me suggest three points for this renegotiation process:

(1) push for a multi-speed/multi-tiered European Union in which members

can join in or abstain from programmes that suit or don’t suit them;

(2) prevent a Euro-Area Finance Secretary, with the mission of "harmonising", that is to say building the "final cage". On the contrary, we need fiscal competition between states and territories;

(3) pass a sort of sovereignty bill in as many European countries as possible, stating that Eu rules may prevail, unless they are overturned by national Parliaments (or repealed by Constitutional Courts, as it happens in Germany). The best thing would be that national Parliaments should be given a general opt-out option on what comes from Brussels.

The EU must not be a cage. It should be a means by which we can achieve our purposes of democracy, free market, and full respect for the taxpayers.

So many in Brussels have mixed up the means with the purposes. Let me quote Mrs Thatcher and what she presciently explained in her “Bruges speech” in 1988: *“The Community is not an end in itself. Nor it is an institutional device to be constantly modified according to the dictates of some abstract intellectual concept. Nor must it be ossified by endless regulation. The European Community is a practical means by which Europe can ensure the future prosperity and security of its people in a world in which there are many other powerful nations and groups of nations. We Europeans cannot afford to waste our energies on internal disputes or arcane institutional debates”.*

Now, before I wind up, let me tell something about the post Covid economic crisis. My point is that we are on the verge of a sort of “post-COVID socialism”.

I see so many politicians and commentators who seem to be in favour of an extremely assertive role of the state. Burt let me say that emergency programmes are easy to establish, less easy to dismantle. Just like our liberties: easy to lose, hard to regain.

So many rely on the Eu plans (starting from the Recovery Fund) and in general on public investment. Let me say that, on the contrary, I believe in a private sector led recovery.

And this is the reason why I urge our politicians to imagine a sort of industrial policy from a libertarian point of view. Not even the best prime minister, not even the most prescient Eu commissioner can understand what will happen in 5 years, because the world is changing before our eyes. So, the best thing to do, from my perspective, is to create an entrepreneur-friendly environment (low taxes, low regulation), letting families and business make their choices. This option might work far better than public plans and an allocation of resources decided by governments and politicians.

THE UNPRECEDENTED CHALLENGE OF THE PANDEMIC

Affonso Celso Pastore *

ABSTRACT: *Bringing clarity to the distinction between risk and uncertainty, the author defines radical uncertainty as belonging to the domain of the 'unknown unknowns', or the known unknowns, like the pandemic. Insisting on the point that we knew that it could have happened sometime, he posits that we are now facing an economic cycle that is completely different from any other we have lived through.*

I thank Lord Mervin King for his excellent presentation. I must confess that in reading his book I was immediately hooked by his arguments, making me think deeper on the question of risk and uncertainty. Going back to what I learned from Frank Knight (then in Chicago) and Keynes (as always in Cambridge), I used to distinguish between risk, to which one can attach a certain probability of occurrence, and uncertainty to which one cannot, but over time econo-mists became accustomed to interpreting uncertainty as if it were a risk, and to attach to uncer-tain events in the Knightian and Keynesian definition a subjective probability of occurrence. Cu-riously, such confusion started both, in Chicago with Friedman and Savage, and in Cambridge with Frank Ramsey. The distinction is not easy. There are risks whose probability of occurrence are easier to evaluate, as in the case of games of chance, and risks whose probability of occur-rence is very difficult to evaluate, as it was demonstrated by the failure of the Long-Term Capi-tal Management with all its models. As well, there are uncertainties that can be tamed, and there are uncertainties that cannot. At the very beginning of your book, you quote Donald Rumsfeld famous comment on reports that no evidence linked Baghdad to terrorist activities: "There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we

*Former Governor of the Central Bank of Brazil.

know there are things we do not know. But there are also unknown unknowns – the ones we do not know we do not know”. Radical uncertainty belongs to the domain of the unknown unknowns or, at most, to the domain of the known unknowns, like the pandemics that hit the world late 2019 and early 2020. We knew that it could happen sometime, but it was impossible to attach a probability of its occurrence at a certain point of time. As you repeat many times in the book, “we don’t know”. The only thing we can do is to adapt our lives to its occurrence and learn to live with its consequences.

We are facing an economic cycle that is radically different from any other economic cy-cles we lived through. One of such consequences is a possible permanent change in the way countries will adapt their economic policies, after the pandemics, towards economic growth. That was the main purpose of your presentation this evening and was widely commented by my predecessors. My questions deal with the short-run reactions of US, Europe and UK to the present economic cycle.

The present cycle is different from all other cycles because it has hit both, the aggregate supply and the aggregate demand. Take the case of the European industrial sector, which is in-tegrated to the world supply chain, that was interrupted when China`s lock-down shut down all its industrial production. The result was a sudden stop of the production process, but that was not the entire story. There was also a contraction of the aggregate demand, that was the ef-fect of the social distancing affecting particularly more the services sector. The aggregate supply contraction due to the lack of components imported from China preceded the aggregate de-mand contraction, and there is no way to separate the two effects. In “normal recessions” there is an aggregate demand contraction and leading to a supply response, but it is easy to identify the origin of the economic cycle and to attack its causes. In such case the governments may opt for a monetary or a fiscal stimulus, but in general they choose the optimum combination of monetary and fiscal (if there is an optimum combination). In the present case without vaccina-tion whatever stimuli will be ineffective. As you clearly explained in your presentation rather than the “normal” fiscal and monetary stimulation what is necessary when the vaccination pro-cess has not yet controlled the pandemics, are monetary and fiscal actions devoted to avoiding negative effects on the unemployed and on weaker enterprises. In that sense, at the beginning of the pandemics we faced a situation closer to a war, with the difference that there were no bom-bardments that destroyed the physical capital, and in which the losses of human capital are much lower. It was only after countries started to vaccinate and dominate the propagation of the pandemics that the regular fiscal and monetary stimuli are affective.

Let me take for granted that early in 2021 US, Europe and UK had already progressed in vaccination that all can use monetary and fiscal stimuli aimed at increasing aggregate demand. All three central banks had already brought down interest rates, but in the case of the US it was followed by a purchase of over US$ 2 trillion treasury bonds. The proof that is was a monetary easing much larger than the one produced by the ECB and the BoE is the weakening of the dol-lar, that measured by the dollar index has already reached 10%. In the case of the US with the exception of the last weeks, when the yield curve started steepening (I will comment on that briefly) the country was caught on a “liquidity trap”, and the newly elected government decid-ed to launch a massive fiscal stimulus of US$ 19 trillion, which amounts close to 10% of GDP. Most of such spending is in checks transferred to the population, and what is expected is that the economy recovers faster in 2021. The main objective of such fiscal package is to accelerate economic recovery. Europe has also approved a fiscal package, much smaller and aiming at a different objective. The euro area is not an optimum currency area, and as such would need to be supported by a fiscal union, which so far has been politically impossible. It is, as well, a very heterogeneous area in relation to the relative stages of economic development of its member countries, and moreover, the European Union was recently affected by the Brexit, and cannot afford another crisis. With that in mind it was decided to approve a 750-billion-euro package to stimulate investments in countries with comparatively lower per capita incomes, as Poland, Ita-ly and Spain, with high potential to generate externalities and increasing productivity. The US objective is to spend more expecting that the Keynesian multiplier brings its economy sooner to full employment. The European objective is only partially to benefit from the effects of the Keynesian multiplier. It is aiming at reaching a more homogeneous stage of development amongst its members, and to consolidate the monetary union.

I like more the European route than the US, not only due to Europeans concerns to the income distribution within the area, but to the possible consequences of the US strategy on the emerging market economies, many of which are Eastern European emerging countries, with ef-fects on the overall behaviour of the European economy. US economists, like Larry Summers and Olivier Blanchard have warned that a US$ 1,9 trillion package mays be erring on the side of overheating the economy. If they are right, and I think they are, inflation will rise, and as I men-tioned before there are already indications appearing in the steepening of the yield curve. In that case the FED will have to increase interest rates sooner rather than latter, with the consequence of strengthening the dollar. That is a reversal of the effect seen so far in such economies, with ef-fects on the European behaviour.

HOW UNCONVENTIONAL IS THE PANDEMIC

Paolo Savona *

ABSTRACT: *Starting from the assumption that we have been facing a supply crisis, the author recalls the impossibility to face the situation via traditional theories or experiences, when tackling demand shortages or excess supply. Some unconventional decisions have been made: in his analysis, he investigates the adoption of non-ordinary monetary and fiscal policies to keep up with the present scenario of 'radical uncertainty'.*

Upon presenting his work — co-authored by John Kay — titled *Radical Uncertainty. Decision Making for an Unknowable Future*, Prof. Mervyn King explained his view about why the world is enthralled by 'radical uncertainty' within a broad geopolitical context. Given a scope as wide as that of his reasoning, I draw up some considerations on the economic roots of the current situation, which stems from an unknown future.

All the speakers have acknowledged that radical uncertainty is increasingly radical: in fact, conditions have been worsening as a response to the isolation between people, and within the production system, due to the pandemic. We are now facing a supply crisis: that is, the impossibility to produce by employing the whole of production factors, due to objective reasons (i.e., preventing the spread of COVID-19) or political choice (i.e., the lockdown). That crisis cannot be faced by applying theories conceived — and experiences had — in the past, when tackling demand shortages or excess supply.

Thanks to the political economy knowledge acquired upon past crises, or interventions to stimulate stagnant systems, some "abnormal" decisions have been made, which have in fact abided by unknown criteria. No debate has ever unfolded

*President of CONSOB.

on how to address the uprising problems: that is, constraints to production and damages compensation.

More in detail, monetary policy has aligned itself with interventions that the authorities themselves labelled as ‘unconventional’: in fact, they acted as first-resort lenders, particularly to ease the funding of governments’ instant needs and ensure the liquidity of financial markets — especially stock exchanges — to avoid more severe troubles.

In turn, fiscal policy stopped targeting the “full employment” of factors of production; instead, it has performed the task — which had partially become a more conventional one — of offsetting the fall in incomes from both capital and labour. Also, it was prompted to do so in pursuit of some social justice goals that have established themselves in a not-so-orderly manner. The growth in sovereign debt skyrocketed everywhere, albeit to diverging extents.

Despite the bounty of available economic policy measures, real GDP did record heavy contractions. This came as a surprise to those who had reasoned with the usual models of economic policy efficacy, which are mostly based on probabilistic models of econometric fashion.

A virtue out of necessity was made, regarding what had been done hitherto as unavoidable (to a certain extent, it was actually the case), yet without any idea about how to escape from the situation yielded by pandemic-related constraints and the measures adopted. From current announcements, we may deduct that a way out is seen in the virus’ weakening aggressivity, as well as the protection that we expect from the vaccination campaign. Nevertheless, the economic policy debate remains poor and keeps showing a poor perspective.

With regard to fiscal policy and sovereign indebtedness, there is talk of heavy injections of assistance and real investment, reforms. Also, particularly within the European Union, they talk about continuing to stand by budgetary rigour positions. However, fainter they may be, there are too voices calling for a comeback to “conventional” fiscal policy: but they do not tell *how*. As for “unconventional” monetary policy, there is a focus on the fact it is bound to stay for long, though diminishing over time; inflation concerns are raised; and discussions are held on whether the target should remain anchored the amount of money or revert to interest rates instead. The latter’s comeback is often urged — particularly in the United States — for the purpose of avoiding those rates may hover around negative levels, whose potentially hurting spillovers on the “quality” of investment firms, as well as the propensity to public and private investment, are not fully known yet.

Into that situation — which is per se already convoluted — broke the spread of private cryptocurrencies, as well as the “tokenisation” of financial assets. Yet this is a wholly new story, still to be written and understood, which — with a view to avoiding radical uncertainty — is no less difficult to live through. In order to (try to) understand the functioning of a market characterised by many IT techniques, we should abandon the traditional forecast-oriented econometric patterns, which are informed by a probabilistic logic, to enter the cognitive one, which yields the optimal outcome given the set of existing information and by treating them via artificial intelligence.

Perhaps fiscal policy has a lighter endeavour, but the monetary one faces some additional issue. Hence, I would ask our authoritative keynote speaker a specific question: why are central banks so reluctant to declare — without mincing words — that official currency is the only one endowed with legal tender (i.e., juridical protection) and debt-releasing power? Why has China just affirmed that, in a direct way, whereas the former ‘western bloc’ countries are still hesitating?

Perhaps the answer to this question is concealed behind the debate that elevates private cryptocurrencies to symbols of freedom, whereas public ones would be unable to do so, as they have to “dose” money supply and the cost of funds, as well as fight against tax evasion, money laundering and terrorism financing. The issue at hand has deep roots in monetary theory, which took two centuries to clearly arise, as well as in the theory of the State, which actually took much longer to establish itself; and is grounded on sovereignty and fiat money instead.