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ARTICLE

Resilience and transnational financial regulation: proceed with caution

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Abstract

As global crises like inequality, climate change and financial instability intensify, 'resilience' has emerged as a central concept in international governance and law. The appeal lies in what scholars call the 'resilience dividend' – the promise that systems can recover and adapt when facing external shocks. This article critically examines how resilience has been adopted in international and transnational law, with a particular focus on transnational financial regulation. The article analyses the Bank for International Settlements (BIS)' work on the resilience of central counterparties, which represents the most extended elaboration on resilience in transnational financial regulation. Rather than accepting resilience as an unqualified good, a more cautious approach is suggested. Resilience risks perpetuating existing injustices and reinforcing neoliberal structures by emphasising survival and adaptation over addressing the root causes of crises. Accordingly, resilience needs to be seen as an ambivalent concept that only through its specification one can determine its possible impact.

Keywords: transnational law; resilience; international legal theory; transnational financial regulation; governmentality; neoliberalism

1 Introduction

Humanity is engulfed in multiple, overlapping and reinforcing crises: rampant inequality, war, the lingering after-effects of COVID-19, financial volatility and above all, the existential threat posed by climate change. Moreover, existing legal, institutional, governmental and political systems are 'losing their coherence and effectiveness' (Larner 2011, p. 329). Against that background, the need for alternative imaginaries, arrangements, narratives or proposals has become more urgent than ever. In particular, a resilience narrative has gained popularity, to the point that 'resilience' has become an 'idiom' in global affairs (Walker and Cooper 2011). The United Nations (UNSDG 2020), the European Union (EU 2013), the Organisation for Economic Co-operation and Development (Mitchell 2013), the International Federation of Red Cross and Red Crescent Societies (IFRC 2014) or government agencies have promoted or proposed resilience as a crucial tool in understanding and tackling the various crises afflicting the world (Joseph 2018). Although less prominent, resilience has also gained some traction in international and transnational law. International courts (Caserta and Cebulak 2021), international security law (Aust 2020; Sari 2020), international environmental law (Monteiro de Lima Demange 2013; Bohman 2021; Ruhl et al. 2021; Ellis 2022) and transnational financial regulation (Chandler and Coaffee 2017, p. 3) are some areas wherein the language of resilience has surfaced. The attractiveness of resilience is

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allegedly due to the 'resilience dividend' (Rodin 2014). By becoming resilient, societies and institutions can survive and renew in the face of unexpected crises caused by the interactions of complex systems. In other words, one cannot only bounce back quickly from unforeseen shocks and crises but also recover more robustly and effectively through the learning and development of novel forms of legal and political acting in the world.

Considering the growing influence of resilience in international and transnational law, I explore its potential significance. I contend that caution and ambivalence should be exercised when adopting and adapting resilience. Although resilience's promise of survival and renewal in uncertain futures holds great potential, if uncritically embraced, resilience can lead to unintended consequences. To be more precise, the focus of resilience on survival amid unexpected and uncontrollable circumstances can overlook how those same circumstances arose. In other words, the language of resilience can be co-opted to reinforce structural injustices (MacKinnon and Derickson 2013; Evans and Reid, 2014; Welsh 2014; Grove 2014). Thus, in the present context of this article, we can observe how resilience is productively used as a means of suggesting the possibility of a radically uncertain future while, at the same time, glossing over and ignoring the structural factors that lead to those unexpected events and crises.

The present paper adopts a dual approach. It examines resilience as a specific framework and explores how resilience manifests in practice, particularly in transnational financial regulation. In this area, resilience has had tangible effects, specifically regulations orientated towards resilience as the focus of study. This is because resilience, as a growing 'idiom' or 'vernacular', is deployed in specific contexts for distinct purposes. Thus, it is crucial to understand the effects that may be pursued, as opposed to those actually achieved through the application of resilience.

Transnational financial regulation is primarily a soft law phenomenon shaped by regulatory networks and public and private subnational and transnational actors (Barr and Miller 2006; Picciotto 2011; Brummer 2015). There are neither multilateral nor bilateral treaties addressing financial issues. Domestic regulations – including the European Union within this category – are supplemented by a deep thicket of standards and guidelines outlining complex rules. An emblematic institution in this context is the Bank for International Settlements (BIS) (Toniolio and Clement 2005). The BIS is a private transnational financial institution composed of central banks. Its primary goal is to foster international monetary and financial co-operation through issuing highly influential standards while serving as a bank for central banks (Bederman 2003; Panourgias, 2006). Within the BIS, one can find the Basel Committee on Banking Supervision (BCBS), which is well known for developing the Basel Accords. The third iteration of these accords emerged after the regulatory failures that led to the 2008 global financial crisis (GFC) and represents one of the foremost internationally agreed sets of standards for bank regulation (Young 2011, p. 39).

The work of the BIS also serves as my object of analysis. The GFC showed that there were 'widespread failures in financial regulation and supervision', 'dramatic failures of corporate governance and risk management at many systemically important financial institutions', 'a combination of excessive borrowing, risky investments, and lack of transparency' and 'a systemic breakdown in accountability and ethics' (The Financial Crisis Inquiry Commission, 2011). The lessons of the GFC entailed reforming the financial system to avoid any repetition. Many of the reforms and calls focused on making the global financial system not only stable but also resilient. Resilience emerged as a key focus in the renewed efforts to promote financial stability. There were exhortations from the Group of Twenty (G20) world leaders to the Financial Stability Board, the International Monetary Fund (IMF) and bodies such as the Basel Committee on Banking Supervision regarding the need for more resilient financial systems and markets. From the outset of the financial crisis, these entities have treated financial stability and resilience as inextricably linked (Arner, 2011). Similarly, the GFC raised questions about considering the financial system from a purely economic point of view. However, while the benefits of economic methodology might provide a better understanding of the workings of the financial system, the methodology

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remains limited. It was necessary to develop complementary theoretical foundations for understanding the dynamics of financial systems. The most famous advocate of this broader approach is Andrew G. Haldane, the Bank of England's Executive Director of Financial Stability, who argued in a series of speeches and papers for the integration of complex systems theory, of which resilience is a part, alongside economic approaches.

Nevertheless, despite repeated calls for resilience, the discussion has remained superficial. As Joanna Gray (2013, p. 802) already noted, in contrast to other concepts such as 'financial stability' or 'systemic risk', there was little guidance on what resilience truly entails. Nonetheless, the calls for resilience and for rethinking financial regulation have begun to yield more concrete results beyond generic statements. In 2017, the BIS, in collaboration with the International Organization of Securities Commissions (IOSCO), published guidelines on the resilience of central counterparties (CCPs). This document represents the most comprehensive attempt to clarify the understanding of resilience within transnational financial regulation, moving beyond general recommendations and speeches. As we shall see, what the guidelines require is the performance of 'stress tests'. Now, stress tests have been a regular tool of financial regulation. They are a simulation designed to assess the capacity of a given financial institution to manage an economic crisis. As the literature has shown, stress tests perform an important epistemic role in financial regulation (Langley 2012; Coombs 2022). The GFC showed that the regulatory requirements for stress testing had been generally quite thin (Schuermann 2014) or had become a 'mechanical exercise' (BCBS 2009). Accordingly, stress tests were revamped to make them more thorough and robust, which has been the case. Now, what makes these guidelines stand out is that they argue for and explain 'extreme but plausible scenarios'. It argues for thinking broadly about which kinds of scenarios CCPs could find themselves in. This is a contrast with, for instance, the European Central Bank's guidelines (2018) on stress testing, which only refer generally to 'plausible' scenarios. Therefore, the CCP guidelines serve as an ideal object from which to analyse how resilience is understood and what effects one could extract from their implementation.

The article proceeds as follows: the first section explores resilience. At its most basic, resilience refers to 'the ability of societies and people to withstand and recover from shocks' (Joseph 2018, p. 11). From that point, the understanding of resilience has multiplied, tracing its genealogy across multiple fields. Here, I examine its most influential account in global governance, particularly that of ecology (Grove 2018, p. 6). As we shall see, resilience represents a distinctive paradigm of sorts, offering 'a theory of growth, development and improvement through embracing change, diversity, surprise and disruption' (Wakefield et al. 2020, p. 1). Moreover, this section shows how adopting resilience entails certain epistemological assumptions about understanding the world. Knowledge is precarious, partial and always fallible, making it impossible to control the world. Instead, we react to what the world presents us. Interestingly, we shall also see how resilience is shaped similarly to systems theory as developed by Niklas Luhmann, although his name does not appear at any point within this literature. This is not surprising, as those advocating for resilience drew from similar intellectual sources (Grove 2018, pp. 144–45). The second section discusses how resilience has been understood in the context of global governance. The third section addresses the influence of resilience in transnational financial regulation and its appearance in the 2017 report. The fourth section provides a critical examination of the report, focusing on how resilience is being co-opted and deployed as a means of obfuscating the operations of the financial system. This is underpinned by the argument that by relying on a systems theoretical approach, resilience ends up reproducing typical problems associated with systems theory. Lastly, I conclude by summarising the main points regarding the promise and perils of resilience.

One clarification before moving on to the article's substance. As it might be inferred from the preceding paragraphs, when I refer to resilience, I am discussing it as a noun instead of an adjective. While both cases share the same meaning, resilience as a noun refers to a broader understanding of the world. In contrast, resilience as an adjective is narrower as it only talks of the

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qualities of something/someone, without aiming at something larger. In other words, not all calls or references to resilience indicate adopting a 'resilient' perspective (Bourbeau 2018).

2 Resilience: transformation all the way down

Resilience came about as a reaction to ecology's dominant approach in the 1960s. Ecological systems (or ecosystems) were thought of as having a 'maximum sustainable yield' (MSY) – that is, the most significant yield (or catch) that can be taken from a species' stock over an indefinite period 'while ensuring future resources will be available' (Grove 2018, p. 70). It was assumed that any ecosystem had a unique equilibrium. After a shock, the ecosystem would bounce back to that equilibrium, which was identified by finding out the variables of the ecosystem and elaborating quantitative metrics (Holling 1978, p. 34; Holling 1996). For an ecosystem to rebound after any perturbation, it was essential to understand how the system could 'cope with and adapt to external pressures' (Sjöstedt 2015, p. 23; Chmutina et al. 2016, p. 70; Grove 2018, p. 6). This involved assuming that there was a linear and stable relationship between the various elements of an ecosystem. In practice, MSY had deleterious effects on the strength and sustainability of ecosystems. Instead of rebounding, fundamental ecosystem diversity was significantly reduced as there was not enough capacity left to absorb shocks, leading to overexploitation and loss of diversity. The importance of complex networks of interdependencies among the elements comprising ecosystems had been underestimated and downplayed (Holling 1973; Walker and Cooper 2011, p. 146; Kirchner 2009).

Against that background, C. S. Holling put forward the notion of resilience as the 'system's capacity to adapt to external turbulences and reorganise itself in a way that existing function and identity are kept' (Walker et al. 2004; Walker and Salt 2012). This understanding emphasises approaching ecosystems holistically. Instead of looking at ecosystems as composed of variables in which a quantitative relation is discerned, observing the existing qualitative elements and how they persist and reconfigure, and considering external disturbances while maintaining the ecosystem's identity and function becomes paramount. Put differently, ecosystems do not have a unique equilibrium to which they bounce back, but multiple equilibria. Ecosystems change, self-repair and adapt to new circumstances, achieving a different equilibrium while retaining their functionality (Shaw 2012; Roger 2017, p. 16). Identifying and improving these conditions is crucial for allowing ecosystems to adapt and reorganise themselves when disturbances occur and to persist in the transformed configuration (Holling 1973, p. 10). It becomes imperative to understand the 'scope of available response options' that an ecosystem might have (Cote and Nightingale 2012, p. 478). Relatedly, the holistic and interdependent nature of the various elements belonging to an ecosystem suggests the existence and formation of emergent phenomena that 'can neither fully be controlled nor prevented' (Dowell-Jones and Buckley 2017, p. 3).

The emphasis on adaptation, multiple equilibria or reorganisation pinpoints that change is the normal state of affairs. To persist, adjustment is required (Chandler 2014). Not only that, but some alterations can provide '*beneficial* conditions' (Walker et al. 2004, p. 5) for the ecosystem. Instead of avoiding instability, which is what change entails, resilience emerges precisely from it. It can produce a different equilibrium as it provides an opportunity to reorganise the ecosystem in light of an external disturbance and allows the system to persist (Holling 1973, pp. 16–17). To some extent, to be resilient suggests that a very different view of the world could be attained, as Grove (2018) suggests.

This approach to ecosystems would be extended to society as well. Ecosystems are now coupled with the social world. Both eco-social systems must be understood as being 'interlinked in continual adaptive cycles of growth, accumulation, restructuring, and renewal'. This cycle, described as 'panarchy' (Holling et al. 1995; Holling 2001), is characterised by three properties at any point in time: wealth or potential for change; controllability or the degree of connectedness

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and rigidity within a system; and adaptive capacity or the system's resilience. Furthermore, this cycle occurs in four distinct phases: a phase of successional growth or exploitation (r), the conservation phase of the equilibrium (K), a phase of collapse or release (Ω) and then a spontaneous reorganisation that leads to a new growth phase (α). Whenever release and reorganisation occur, it indicates a moment of self-organised creative destruction where a system reorganises itself in response to a disturbance. This interlocking of social and ecological systems aims to suggest that '[e]ntities, beings and systems do not enter into relationships but are already essentially imbricated in them so that change is inherently produced' (Schmidt 2017, p. 119). The various systems and their internal elements are transformed continuously over time. This will affect the organisation or disorganisation of the multiple systems. As a result, the uninterrupted iterations and subsequent changes allow for

> 'The possibility of new system configurations and opportunities utilizing the exotic and entirely novel entrants that had accumulated in earlier phases. The adaptive cycle opens transient windows of opportunity to generate novel assortments' (Holling 2001, p. 397).

Panarchy pushes forward the notion of resilience. Now there are multiple potential equilibria within an ecosystem but also multiple possible equilibrium points, distributed and balanced across systems, ecological or social, operating at multiple spatial and temporal scales. The conceptual importance of panarchy, as Grove remarks, is that it aims to capture '*how* systems move through phase space *without* crossing a critical threshold and losing their basic form, identity, and structure'. Any system's reconfiguration occurs during the 'movement from Ω–α', which allows systems to autonomously self-organise in response to disturbances and to shift between multiple equilibrium points (Grove 2018, pp. 81–82).

In sum, resilience emphasises non-linear dynamic transformations, thresholds, surprises, how periods of gradual change overlap with periods of rapid change 'and how such dynamics interact across temporal and spatial scales' (Folke 2016, p. 253; Duit et al. 2010, p. 364; Sjöstedt 2015, p. 23). More broadly, being resilient indicates that despite the ever-changing world around us, there is a possibility that we can adjust to these new circumstances, endure and even thrive.

This further suggests that there are some specific epistemological and ontological commitments behind resilience. It represents a distinct style of thought concerning change and transformation in the world. To be more precise, resilience upends the relationship between truth and control. It challenges those approaches that take a hierarchical understanding of the relationship of humans vis-à-vis their object of knowledge as a starting point. Those intervening possess the requisite, appropriate knowledge and authority because they believe they 'have access to objective and totalizing visions of how the social and/or ecological system in question operates' (Grove 2018, p. 70). The world can be known in its totality, the optimal state of any system grasped and controlled to correct any possible deviations (Grove 2018, p. 70).

Resilience, in contrast, emphasises that what we know about the world is both more limited and expansive. It argues for epistemological modesty, embracing the limits of human cognition (Zebrowski 2017, p. 67). As David Chandler writes, resilience operates on the level of 'unknown unknowns' (Chandler 2014). We inhabit a world full of unknowability and fallibility. The causality of outcomes can only be known after the event. In such conditions, prediction is impossible because the complexity and intricate entanglement of eco-social systems entail that changes will be non-linear and often unforeseeable. Absolute control or omniscience is not possible. It follows that interventions aimed at shaping possible outcomes are irremediably altered. For instance, past experiences are insufficient to anticipate new risks. The notion of 'future events' becomes problematised as how the relevant 'knowledge can be acquired and how contingency can be tamed' (Aradau 2017, p. 80) is cast into doubt. Because ecosystems and societies are linked and interact in complex ways and co-evolve at different equilibrium points, it entails that there 'is an inherent unknowability as well as unpredictability' (Holling 1996). One cannot predict all

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prospective possible scenarios. As a result, this uncertainty breaks the linear relationship between the present and the future; there is no clear path. Hence, talking about the future becomes misleading (Schmidt 2017, p. 119). Any reality is fundamentally de-centred and rendered unstable. Disruption is inevitable, and novelty is always already in the making (McDaniel et al. 2003). Surprise is part of the natural order of things. It becomes ontologised, as Claudia Aradau remarks (2017, p. 82). Instead, we have the unfolding of novel worlds, which are never spatially total but never spatially separate. Events are always emergent and partial. As Schmidt (2017, p. 119) remarks, 'world-creation is thus sustained as a continuous, dynamic, and self-causing process'. A corollary is that instead of presuming that we possess sufficient knowledge, we need to recognise our ignorance and expect the emergence of unexpected events, considering unintended changes and effects. More radically, there is no clear demarcation between the external world and our knowledge of it.

Intervention, following resilience, involves keeping options open, emphasising heterogeneity and acting with the consciousness that we exist in a place of partial knowledge facing radical uncertainty. Furthermore, the various systems need to be thought of as having the ability to imperfectly anticipate an event and its effects, to proactively react, manage risks, co-operate, experience, learn and respond after the event to mitigate effects, transform or adapt, while trying to keep the identity of the various systems. It becomes crucial to think and design systems with the general and qualitative ability to absorb and accommodate 'future events in whatever unexpected form they may take' (Folke et al. 2010, p. 2). In short, becoming resilient entails learning and combining experiences to adjust the response in light of 'external drivers and internal processes' (Folke et al. 2010, p. 2). Paramount to such processes is the constant monitoring, reflexivity, flexibility and adaptivity to confront whenever unexpected effects emerge. It is a 'never-ending open process' in which systems are prepared for inevitable disruptions from multiple sources of often unanticipated demands. Imagination and creativity need to be used to try to anticipate and prevent the effects of new risks.

The promise then of resilience is not one of 'progress, growth and development', but one of survival, renewal and potentially thriving 'in an indeterminate world' (Chandler 2014).

3 Resilience goes global: adaptive governance

Much like the discontent with how ecology approached ecosystems in the 1960s, resilience's popularity in academic, institutional or policy circles can be partly attributed to the growing dissatisfaction with top-down/command-and-control approaches by governments and other institutional actors in addressing past crises in conjunction with the belief that governance needs to be understood as instrumentally acting in a world potentially amenable to cause-and-effect understandings (Brunner et al. 2005; Brunner and Lynch 2010; Chandler 2014). Resilience, with its emphasis on interconnectedness, survival, renewal and complexity, challenges that worldview and taps into the urgent need to better understand 'the conditions for effective and legitimate governance in a [. . .] volatile world fraught with a new class of poorly understood systemic risks' (Duit 2016, p. 364).

Following resilience's fundamental tenets, to govern now means not forcing society to impose objectives or control societal processes externally. No agent has the power to control the direction of processes or achieve specific objectives (Fainstein 2015, p. 169). Governance needs to be geared towards facilitation (Chaffin et al. 2014), to strengthen the ability to cope with sudden crises (Manyena 2006), manage and prevent them from spiralling so that they do not threaten the identity of the systems and recover from a shock (Boin and van Eeten 2013). Through repeated interactions, societies and institutions will 'bounce back better'. They will learn more about themselves and construct novel forms of interconnection. Moreover, failures are no longer failures. Instead, they provide the opportunity to comprehend unintended consequences and side

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effects in a world of emerging interconnections and complexity. Interventions become an ongoing process of self-reflection in the context of existing entanglements (Chandler 2014). It will be further transformative processes through experimentation, grasping momentary and fluid connections and interrelations in a highly context-dependent way. In other words, through the experience from past interventions and their intended or unintended consequences we can incorporate them for future unexpected crises (Berkes et al. 2002, p. 13). In sum, we must work 'through' the reality of complex life rather than 'over' or 'against' it (Chandler 2014, p. 35). What becomes crucial is to avoid falling into undesirable stability domains.

Thinking more concretely about resilience in societal terms can entail how a particular societal function, such as water supply, health care services, electrical supply, traffic flow or sustainable natural resources, continues to operate and how an organisation or institution can maintain its internal command structure, information flows and capacity to act during a crisis (Boin and van Eeten 2013). Governance involves increasing the level of organisational, cultural and institutional response diversity (Wildavsky 1988). This can be undertaken by enhancing social learning, knowledge sharing, stakeholder participation, multi-level governance, policy experiments, bridging organisations, leadership and sense-making. They allegedly help increase the available stock of routines, information, knowledge and regulations that may help a system deal with sudden shocks (Folke et al. 2005; Folke 2007; Brunner 2010).

Resilience has become as standard as it is analytical: societies must 'recognize impending dangers, learn on the spot, work in joint teams and high spirits, improvise their way around excruciating setbacks and emerge from crises stronger and better' (Boin and van Eeten 2013, p. 429). It necessitates self-awareness, reflexivity, responsibility, preparedness and vigilance against passivity. The goal is to sustain system flexibility and facilitate internal change, encouraging organic change instead of restricting it to uphold the status quo. This means reconsidering structures and institutions to achieve particular objectives, ultimately shaping society's desired future.

At this juncture, we can examine how these normative desiderata, which underlie social resilience, emerged in transnational financial regulation.

4 Resilience after the global financial crisis: extreme but plausible scenarios

As mentioned in the introduction, the turn to resilience in financial regulation came in the aftermath of the 2008 financial crisis. The events of 2008 are by now well established. Put briefly, on 13 September 2008, Lehman Brothers went into bankruptcy. At the time, the bank's global over-the-counter (OTC)[1] derivatives[2] position was estimated at $35 trillion in notional value, which included being a counterparty in 930,000 derivatives transactions representing $24 billion in counterparty liabilities. The next day, every major Wall Street firm involved in the $600 trillion OTC derivatives market came to work on a Sunday for an unprecedented emergency trading session to limit the knock-on losses of its collapse on other financial institutions. This had very little success. Ultimately, the world ended in a crisis of historical proportions, one in which the financial system would not only go down but bring everything else down as well.

In the aftermath of the crisis, the magnitude of the financial system's failures led to urgent calls to re-evaluate and revamp the global financial system. Resilience soon became a standard riposte among regulatory actors to tame the financial system's instability. The calls for resilience related to how to make the financial system more capable of absorbing shocks from the economy and financial markets rather than generating them (Bank of England 2009). Nevertheless, despite

[1]Over-the-counter (OTC) trading is the process of trading between two parties without the supervision of a central authority or via a centralised exchange.

[2]Financial derivatives are financial instruments that are linked to a specific financial instrument, indicator or commodity, and through which specific financial risks can be traded in financial markets in their own right.

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repeated calls for resilience, the discussion remained superficial. Resilience was deployed as a generic way of suggesting that it was desirable to achieve systemic stability without thinking much about how to understand the subtleties of global finance and the required regulatory responses for achieving stability. The only exception was the writings of Andy Haldane, chief economist of the Bank of England at the time. Haldane's texts, referencing complexity theory and other fields, represented a stimulating attempt at reconceiving the financial system beyond the reigning orthodoxy in economic thinking (Haldane 2011). Nevertheless, despite his elite status, the writings would not significantly impact the shaping of the reforms. Although important reforms, such as the third iteration of the Basel Accords, were introduced, there was no agenda for deeper, broader and more substantive reform, with resilience as the lodestar (Dowell-Jones and Buckley 2017, p. 4). In short, resilience was framed not as a suggestion for a broader understanding of the financial system, but rather as its simplest interpretation – that is, the ability to withstand and recover from a shock.[3]

This state of affairs has somewhat changed. While resilience has not become central to the architectonics of the global financial regulatory system, the repeated calls have nonetheless borne some fruit. BIS, in conjunction with IOSCO-OICV, published guidelines on the Resilience of Central Counterparties (CCPs): Further guidance on the PFMI in 2017. The guidelines were supplemented by another document on Principles for Operational Resilience, published in 2021. As far as I am aware, the guidelines represent the most extensive understanding of what constitutes a resilient financial system in transnational financial regulation. Furthermore, the fact that the guidelines come from an institution such as BIS, central to the operation of global financial markets, indicates that what is being argued for has the implicit backing of main actors within the financial world. Like many other guidelines, this one is also formally non-binding, but it is expected that the principles laid down will be complied with (BIS-IOSCO, 2017, p. 1).

The need for the guidelines reflected a broader set of reforms to the financial system instigated in the aftermath of the GFC. Because of its focus on CCPs, a brief explanation of what they are and their relevance in the financial system is needed. Before the crisis, derivatives were often dealt with in bilateral settings and with ad hoc margin requirements.[4] Under bilateral settings, parties can be exposed to additional counterparty risk through contagion, since if one party defaults, it can set off a cascade of further defaults. Because of the importance they gained in the financial system, policy-makers in the USA and the European Union decided to hedge the risks associated with derivatives. Most derivatives would be centralised through clearing houses, namely the CCPs. The inclusion of an intermediary, the CCP, in the relationship was believed to reduce the probability of initial default as well as counterparty risk arising from contagion because the CCP, as the mediator, could manage the risk with the necessary resources to prevent the cascade by limiting it to a single case. However, this merely displaced the problem instead of solving it. Placing CCPs at the centre of the financial system meant that if CCPs encountered financial difficulties, they could have an extremely harmful effect on the stability of the financial system (BIS-IOSCO 2017, p. 1). Hence, the guidelines.

[3]One of the reviewers has suggested that the origins of the GFC can be traced back in part to the application of 'adaptive governance' techniques. If I understood correctly, the reviewer is thinking of 'new governance', as it is better known in regulatory theory. I would argue that although there is much resemblance between 'adaptive governance' and 'new governance', there are some important differences between them, which explain why I have not drawn from authors such as Julia Black (2012), however useful her contributions to the debate have been. The critical difference, in my view, is the ontological background of adaptive governance compared to new governance. Both take seriously issues of uncertainty and react against 'command and control' approaches. But adaptive governance carries with it the systems theoretical approach, whereas new governance remains neutral on ontological grounds. Thus, one could argue that part of the failure of how new governance was adapted to the financial system was that it was not 'adaptive' enough. It was applied against the background of a predominantly economic point of view. Therefore, the engagement with 'new governance' for the purposes of this article is not so obvious, even if a greater rapprochement would be helpful.

[4]A margin requirement is the percentage of marginable securities that an investor must pay for with his/her own cash.

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At a basic level, resilience is presented as having sufficient liquidity[5] to withstand any systemic crisis or shock, which in the report's own vocabulary refers to the simultaneous default of participants in the financial market (BIS-IOSCO 2017, p. 6). The report explores the various ways in which sufficient liquidity needs to be achieved by the CCP so as not to incur its default. Additionally, and importantly, sufficient liquidity depends on the CCP's risk tolerance,[6] which is balanced vis-à-vis the minimum 'coverage requirements' for credit that a CCP might have,[7] the stability of the broader financial system and other relevant public interest considerations (BIS-IOSCO 2017, p. 6). This overall balancing will make up the CCP risk profile and determine the resources it should maintain above the minimum standards, the quantity of which will vary considering the ongoing circumstances, and to take swift action if the CCP is at risk (BIS-IOSCO 2017).

To avoid any risk scenario, the report establishes that the CCP should regularly test the sufficiency of these resources through ongoing and regular stress testing exercises. To figure out how much liquidity and credit a CCP might necessitate, and to identify the risk factors to which the CCP might be most exposed, the report states that the CCP needs to conduct stress testing (BIS-IOSCO 2017, p. 63). These should be comprehensive. Furthermore, stress tests need to be undertaken and updated continuously (BIS-IOSCO 2017). Importantly, there is not just one stress test but multiple ones. The requirements will differ depending on which area we are dealing with, let us say, the margin system or intraday, changes in market conditions and structures, products, services, policies or who is defaulting. That said, the stress tests are not radically different. They overlap in essential respects. However, because they are geared towards particular processes, the requirements differ slightly. The difference, then, is quantitative rather than qualitative. Likewise, the report acknowledges that the construction of scenarios crucial to the performance of stress tests will involve subjective judgment. Accordingly, the report underscores the importance of achieving a reliable judgment. To do so, it is argued that it would be beneficial to have extensive expertise concerning the behaviour of the underlying markets, their ecosystems and the risk tolerance of the CCP (BIS-IOSCO 2017, p. 41).

Crucial to the exercises is that they need to be conceived in what is described as *all relevant extreme, but plausible, scenarios and market conditions*. According to the report, the scenarios that will be part of the stress tests will be effective only if they are designed so that they are both sufficiently extreme to identify all sources of risk *while* retaining a level of plausibility. The plausibility requirement is seen as necessary; otherwise, performing proper risk management would not be possible. For instance, when performing a stress test involving several simultaneous actors defaulting, the supposed number needs to be extreme but plausible given the composition of its participant base and monitoring the composition and concentration of projected losses across the various actors. Equally paramount is the appropriate identification of the sources of risk. This involves, among other things, an ongoing revision and substantiation of the models used during the exercises, their underlying parameters and assumptions, and the selection of risk factors used in constructing the stress test scenarios. This is specified as comprising historical and forward-looking scenarios, which in turn need to be justified using a combination of expert judgment, reliable statistical techniques and the methods used to verify the accuracy of the data (BIS-IOSCO 2017, pp. 8, 57). Focusing on the latter, the report provides a non-exhaustive list of what the stress tests should bear in mind. Hence, (i) the number and interdependence of risk factors; (ii) data availability, data reliability and the characteristics of such data (e.g. seasonality);

[5]Liquidity is understood as covering (i) the required level of total prefunded financial resources to cover credit exposures and (ii) the required level of qualifying liquid resources in each currency to cover liquidity exposures.

[6]As the name suggests, 'risk tolerance' refers to the amount of risk that someone is willing to take in light of the volatility of an investment.

[7]Coverage requirements are deployed as a means of assuring that the CCP can service its debt and meet its financial obligations.

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(iii) model performance; (iv) model stability; (v) flexibility and scalability; (vi) independence of errors and breaches; (vii) transparency and predictability; and (viii) correlation offsets (BIS-IOSCO 2017, p. 70). Lastly, the range of scenarios that need to be considered is quite extensive: relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets and so forth.

When devising any scenario, it is stressed that the CCP should ensure internal consistency in its modelled risk factor shocks. That is, they should be plausible when viewed individually and in combination. Additionally, the scenarios should be evaluated to determine whether they are, when considered collectively, comprehensive enough to reliably determine the exposures in cleared portfolios under any of the range of extreme market conditions that might plausibly develop. The modelling framework needs to incorporate a set of risk factors that is flexible but sufficiently comprehensive to capture, under various extreme but plausible market conditions, both the material risks that could currently impact the CCP and risks that could plausibly emerge in the future.

The report argues for a combination of current information, historical and forward-looking and/or hypothetical scenarios to capture such events. The rationale behind this diversity is relatively straightforward. While some of the sources can be directly observed, in other cases, the information is fragmented, limited or simply non-existent, and therefore they need to be estimated or modelled (BIS-IOSCO 2017, pp. 8, 41). Unsurprisingly, the type of information that needs to be considered is broad. The report mentions, *inter alia*, exposure to the market value of cleared positions, price movements for all cleared products over the liquidation period, or of the collateral and any other financial resources available to cover these exposures, potential changes in the size and composition of cleared portfolios after the last collection or transaction costs or ask spreads when hedging the portfolio (BIS-IOSCO 2017, p. 6). The report emphasises that the procedures used for analysis and any possible adjustments considering market developments should be 'rigorously' tested and validated at regular intervals.

Concerning historical scenarios, the report mentions peak historical price volatilities, or for each different portfolio, historical maximum price changes between two other points during the liquidation period. When developing the historical scenarios, the report insists that it is important to hew as close as possible to the historical events for which reliable price data are available. At the same time, however, adjusting historical scenarios to ensure plausibility might be necessary at certain points. An example given would be the use of relative rather than absolute price movements when asset prices are low. In a similar vein, although the report insists that the stress tests should include all of the extreme scenarios, it allows the exclusion of some historical scenarios. Suppose the CCP believes that the recurrence of the historical scenario is implausible due to a change of factors, and only when a comprehensive, rigorous analysis has been undertaken beforehand. In that case, the historical scenario can be removed from the data. That said, the report stresses that the mere passage of time is not enough of an excuse for excluding historical scenarios (BIS-IOSCO 2017, p. 6).

The report also discusses forward-looking or hypothetical scenarios because of the limitations of extreme but plausible historical scenarios, such as their limited frequency, scant historical evidence or the fact that a CCP might face an event not captured in the historical data. They are defined as plausible events that have not occurred previously or for which consistent information is missing. The report differentiates between hypothetical (or narrative or prospective approach) and theoretical methodologies. The latter is concerned primarily with statistical modelling. It involves using proxy data or extrapolating historical data that do not contain sufficiently severe periods of market stress to be observed directly. The data here need to be regularly validated. The report suggests several methods, such as using similar asset classes to synthetically extend the available historical data, based on an analysis of the relationships between data from the new asset class and data from related asset classes with a more extended history.

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Forward-looking scenarios are those that are non-existent – that is, not yet observed. The report stresses that developing this type of scenario involves both subjective judgment and imagination. They are developed through the informed judgment of experts on the subject from within the CCP or the participant community. Experts should have relevant knowledge of the underlying markets, including not only the economic factors but also physical, environmental or geopolitical factors that might affect those markets in the form of events that have not occurred before and consequently cannot be modelled directly. The range of potential events (referred to as catalysts) is as follows: geopolitical events, environmental disasters and past events that have occurred in different but related assets. For each catalyst, the report suggests elaborating multiple scenarios to account for other potential impacts, as a specific shock might generate various plausible responses across various markets. Likewise, the design of hypothetical scenarios should contemplate how the position of participants may be affected by the particular stress event. In other words, the scenarios should capture the interrelationships among the market participants and the various products circulating in the markets (BIS-IOSCO 2017, p. 52).

The report further insists that the scenarios should be multidimensional. Attention must be paid to the relationship among variables, which can be linear, non-linear or in between. Additionally, the scenarios need to be approached not as single events but as processual ones. The report suggests considering the 'knock-on' effects among financial markets. This would entail figuring out second or third-order effects on the related markets, which should also be extreme but plausible. As an example, a CCP may develop a scenario starting with an initial assumption of a sudden sharp move in oil prices. The CCP could then construct knock-on effects in which related products such as natural gas and equities are consequently shocked. In contrast to adding together the most extreme shocks observed across products, the report argues that this method of constructing scenarios can help to ensure that the resulting scenario is plausible. Importantly, when evaluating the risks that the CCP might incur in stressed market conditions, the CCP should identify the appropriate length of time over which exposures could be realised.

One important point emphasised in the report is the recognition that circumstances are constantly evolving. Therefore, the report insists that the CCP remains vigilant and considers scenarios that were once deemed implausible but may now be viable (or vice versa). Accordingly, modifying the extreme but realistic scenarios used in stress testing or adjusting the existing models and underlying parameters and assumptions may be necessary. Relatedly, the scenarios are demanded to be analysed to examine how various parameters and assumptions that reflect possible market conditions might affect the stress test. Using such analysis, the CCP can measure the impact of the parameters and assumptions to ensure that it understands how to respond to evolving market conditions. By varying parameters and assumptions simultaneously, the CCP is supposed to identify better and understand interactions between these variables, especially where these interactions are complex and not necessarily intuitive or obvious. In addition, the CCP should reverse stress testing. According to the report, this exercise will aid the CCP in identifying extreme scenarios and market conditions in which total pre-funded financial or liquidity resources would not be sufficient and assess whether the break-even scenarios are plausible (BIS-IOSCO 2017, p. 58). Lastly, the report suggests incorporating additional 'for-information-only' scenarios into its stress-testing framework. These scenarios should be implausible rather than extreme but plausible scenarios. It is argued that they could help a CCP examine the boundary between plausible and implausible scenarios. For instance, these plausible scenarios are connected to current market conditions; the plausibility of specific scenarios may vary based on current market conditions, and 'for-information only' scenarios could inform the CCP on how its credit and liquidity risks may change as market conditions change. Furthermore, banks should incorporate the possible lessons learned from previous incidents in their response and recovery plans. Moreover, these plans must be periodically reviewed, tested and updated. Root causes should be identified and eliminated to prevent the serial recurrence of incidents. The Committee recognises that measuring a bank's operational resilience is in a nascent stage, and further work is required to

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develop a reliable set of metrics that both banks and supervisors can use to assess whether resilience expectations are being met (BIS-IOSCO 2017, p. 14). Although the report is quite extensive and lengthy, for the purposes of the present paper, what I have presented suffices, as it represents the core of the idea behind the guidelines.[8]

5 Resilience as a governmental technique

In light of the preceding discussions, how should we consider the adoption of resilience? Before the guidelines were published, some commentators criticised how resilience had been understood in transnational financial regulation. It was argued that resilience is employed as a broad descriptive term to promote predetermined goals rather than representing a new paradigm (Dowell-Jones and Buckley 2017). At first glance, the report reinforces such an assessment. The sense of resilience reflected in the report seems limited. The guidelines demonstrate a very superficial understanding of resilience and what it would mean for the financial system. In principle, a genuine embrace of resilience would involve considering non-linearity, multiple equilibria, the dynamic uncertainties of constant change and so forth. In contrast, the report's understanding of resilience is focused on 'rebounding' as quickly as possible and the resources required. There is no sense of transformation in light of novel, unexpected events. In other words, resilience is still far from the radical epistemological and ontological shifts suggested in the literature. For all the talk about uncertainty, imagination or implausible scenarios, the approach remains firmly grounded in what one would identify as mainstream economic thought. Resilience pertains to the qualitative evaluation of the elements of a system and how they interconnect. The report, on the other hand, emphasises quantitative analysis of the possible evaluation of how much liquidity a CCP has and how it impacts the value of the assets. It is only through valuation, which in this context refers to a numerical value, that geopolitical or natural events can become a focus in the stress tests. Likewise, despite acknowledging epistemological limitations, the report appears insistent on the possibility of depicting unexpected events or scenarios. In a literal sense, CCPs should capture incalculable uncertainty (Dowell-Jones and Buckley 2017, p. 68). As Melinda Cooper writes, this unpredictability paradoxically poses a challenge to developing new and enhanced modelling and mathematical techniques (Cooper 2011, p. 379).

Yet there is a sense of an epistemological shift, however slight. The reference to the extreme but plausible scenarios based on a multiplicity of sources is an acknowledgment that financial networks are 'complex, interdependent systems, which must adapt to a range of global uncertainties, of which they are themselves a constituent element' (Brassett and Holmes 2016, p. 371). In other words, there is a predisposition to think 'beyond the financial system and its complex and interlocking nature with other systems' (Dowell-Jones and Buckley 2017, pp. 12–13). There is equally an acceptance of unexpected events, recognition of the limitations of what knowledge can achieve and an insistence on drawing from multiple sources and methodologies. Relatedly, the ongoing need for a reappraisal of models due to ever-changing circumstances or unexpected events indicates that there is an awareness of the existence of multiple points of equilibria. So, while it is not explicit, behind the dry technical nature of the guidelines, one can notice how financial markets are understood as complex systems that exhibit uncertainty, unpredictability and the potential for crisis. Ultimately, the guidelines aim to produce 'resilient subjects capable of coping and indeed thriving' (Brassett and Holmes 2016, p. 377).

That said, the report gestures towards other systems while staying firmly within the boundaries of the financial system should not be surprising from a resilience perspective. If resilience is about epistemic uncertainty, what Luca Mavelli (2019) describes as a 'leap of faith' in the capacity of the

[8]Not long after the guidelines were published, BIS also put forward the *Principles for Operational Resilience*. It outlines a series of principles banks must adopt to deliver critical operations through disruption. As such, it is a much shorter document, and it does not depart from the overall tone and objectives behind the guidelines (BIS 2021).

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resilient subject amid complexity to generate knowledge out of fragmented sources, it follows that the report necessarily has to adopt a fragmented and narrow view. Plus, if we take seriously the system orientation of resilience, there is also the implication that those acting within the economic system will adopt an internal point of view of the economy while considering the external environment as a component that must be interpreted within the system's framework of comprehension.

But it is undeniable that critics are correct in pointing out that there is something underwhelming about the report's handling of resilience. Beneath the explicit or implicit recourse to uncertainty, variability, imagination and so forth, the ultimate objective is quite pedestrian: the CCP needs to have enough liquidity to withstand a sudden liquidity shock. In short, the radical implications of resilience have ended up being assimilated and made intelligible and workable within existing discourses of financial regulation (Brassett and Holmes 2016, p. 377). There is a gap between the apparent radicalism surrounding resilience and what is currently being discussed. In my view, this disconnect is no accident and stems from the protean quality of resilience as a concept.

But besides these considerations, which relate to how 'faithful' resilience has or has not been implemented and insinuate that there is a 'true' essence to resilience, it is crucial to remember that resilience needs to be situated within a particular set of beliefs and social relations (Nadasny 2008, p. 213). As Brassett and Holmes (2016) have argued, one needs to understand how financial resilience is performed in different contexts and which possibilities and limits are performed in resilience's name.

In that regard, the use of resilience in the report sheds some light on some features immanent to resilience which give it its ambivalent status. Understanding this ambivalence requires a change of tack and observing how resilience is put to work, to see what resilience does (O'Malley 2010) and to think of 'resilience of what, to what, and for whom?' (Cretney 2014). Following Jonathan Joseph and others, I agree that it is fruitful to think of resilience as a governmental technique, in line with Foucault's analysis of neoliberalism as governmentality (Joseph 2013; Dean 2010, 2013). Briefly put, neoliberalism is seen as 'a governmentality strategy that operates from a distance' (Foucault 2008). It is a strategy aimed at establishing standards for behaviour and evaluating adherence to the collection of international practices and norms. It appeals to those being governed to govern themselves rather than be governed through direct state intervention. The population is controlled 'indirectly' through mechanisms of self-discipline and self-regulation (Foucault 2008, p. 319; Miller and Rose 1990). These techniques entail the normalisation and discipline of society 'on the basis of the market value and form' (Foucault 2008, pp. 146, 242).

While not coterminous, resilience's insistence on taking care of the self and rebounding in the face of external disturbances and adversities suggests a strong and deep 'elective affinity' with neoliberalism's indirect style of governance. Resilience concerns adaptation and flexibility, allowing eco-social systems to withstand, adjust and thrive during external shocks and crises. Similarly, neoliberalism is invested in governing less and in 'encouraging free conduct' (Joseph 2013, p. 42) through market logic. This produces a specific form of social rule that promotes and 'institutionalises the rationality of competition and enterprise individualised responsibility' (Joseph 2013, p. 43), shaping a distinctive subjectivity. In both cases, individuals or eco-social systems should react to their environment (Evans and Reid, 2014). There is in fact an inversion of responsibilities (Joseph 2013, p. 43). The ability to rebound, as suggested by resilience, is the result of self-generated contexts and capabilities rather than the result of the collective order (Hall and Lamont 2013). The role of the government within neoliberalism is not to protect but to facilitate and enable 'more adaptive and capable individual choices' (Chandler and Reid 2016, p. 4).

Importantly, the specific subjectivity that is produced through resilience, which is similar to that produced by neoliberalism, needs to be conjoined with resilience as a perspective. Like any other approach, resilience shapes our understanding of the world by telling us what we 'should be focusing on' (Walker and Salt 2012, p. 23). In this case, resilience is about being adaptable, flexible

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and able to withstand unforeseen shocks or events. Essentially, resilience is a reactive way of being and interacting. In Neyrat's view (2018, p. 75), the ontological axiom of resilience is that turbulence is unavoidable. We can only hope to manage it but not control it. This framing has several consequences. One of them is that there is a sense of inevitability built in, as eco-social systems interact in unexpected and emergent ways, which limits the possibility of action. Aiming for transformation is, at worst futile, or at best limited. Despite the alleged unpredictability of eco-social systems, resilience, as embodied in the Panarchy model, 'represents an extraordinarily strong deterministic claim about the functioning of society and the limits of human agency' (Duit 2016). This 'fatalistic' (Joseph 2016, p. 381) interpretation of the world in light 'of the complex and uncertain nature of systems' (Joseph 2016, pp. 378–79) entails that we should 'accept' the status quo, or in more charitable terms, live with it.

Differently put, and more problematically, eliminating the ability to detach oneself from a situation and sever its ties is akin to sentencing individuals or systems to adapt with resilience, without questioning whether the turbulence they experience was deliberately orchestrated (Neyrat 2019, p. 82). This can obscure how power works and ignores how resilience can be a 'vector for power relations' (Grove 2018, p. 182). It glosses over the broader political and economic context of which eco-social systems are a part (Nadasny 2008, p. 216). In short, resilience suggests that populations or systems need to adapt to circumstances without pinpointing or elaborating that those circumstances are an effect of wider structural inequalities marginalising certain peoples and places (Watts 1983; Maskrey 1994; Grove 2018, p. 43).

Take our example. The report presents CCPs as merely populating the financial system and taking the necessary measures to survive. In itself, the report proceeds as if the possible crisis is simply the result of unintended consequences, considering the complexity of the global financial system. It embraces the notion of complexity as unknowability, which is exogenous to human action and interaction, making 'it impossible to grasp the manufactured and strategic character of complexity' (Mavelli 2019, p. 233). The fact that banks (with the complicity of the regulators) have created the circumstances that produced the crisis and continue to do so (Dymski 2009; Major 2012), is glossed over. Resilience, then, serves as a means of reifying 'financial market practice as pre-existent, a reality to which regulation can only respond' (Brassett and Holmes 2016, p. 381). Interestingly, this reification is double because the report fails to address power dynamics within the global financial system and neglects to acknowledge that those impacted by it actively participate in its structures.

Some might argue that the report is quite narrow and technical, so it should not be surprising that there are some omissions. It is a specific report published for particular purposes. Yet the report is inextricably linked to the overall role of resilience within the discursive and material underpinnings of transnational financial regulation. It represents a cumulative effect. The report cannot be viewed as a self-standing document (McKeen-Edwards and Porter 2013). Moreover, even if we were to accept the report as it stands, it is worth noting how it leaves the assessment of their risk appetite to the CCP. All the talk about preparedness and contingency is subtly undermined by the discretion given to CCPs regarding their level of risk appetite. This aligns with how the proposed reforms post-GFC were weakened, and the agreed-upon measures did not address the underlying issues (Ertürk 2016). In short, the report, through resilience and its oblique references to complexity and uncertainty, has 'an ideological quality to it since, like any theory of structure, it offers ways to assign, or absolve particular actors of, responsibility' (Brassett and Holmes 2016, p. 381). Responsibility is shifted on to the complexity of the financial system while ignoring that crises result from actors wielding agency (Christophers 2009, p. 808).

In other words, much of the 2008 crisis was attributed to the systemic complexity of the financial system, 'to invoke "complexity" as a causal and sufficient explanation of crisis in and of itself' (Christophers 2009, p. 808). Therefore, the writings of Haldane and others suggest looking towards complexity sciences to provide some sort of 'econophysics'. While this suggestion is not without merit, it is important to note, as Langley (2012) already did, that the financial system

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ultimately consists of reflexive agents interacting with one another. In other words, complexity – both in market structure and the continual emergence of new financial products – along with the agents, actively pursued the financialisation of non-financial markets based on the premise that they offer opportunities for higher profit (Schwarcz, 2010, p. 17). Accordingly, the apparent conceptual departure of resilience from how financial markets were analysed prior to the 2008 crisis – that is, general equilibrium – sidesteps these issues (Brassett and Holmes 2016). It ends up as empty structuralism (Kagan, 2009, p. 507).

Differently put, this obfuscation can serve as a means of depoliticisation. The process can occur in two ways. One way can be traced back to resilience's system-orientated approach. As it has been remarked, the systemic orientation of resilience leads to an almost deterministic view of the world. Human agency seems to matter little. A system approach takes what John Levi Martin describes as a third-person view of society. This approach tends to address the how-type of questions. The opposite is the first-person view. This approach tends to answer the why-type of questions. An example would be that of gravity. When we explain the falling of a rock, we resort to gravity as an explanation, which is the how-type of question, but we would not ask the rock why it is falling, as the rock cannot answer back (Martin 2001, p. 190). The same logic goes *mutatis mutandis* about social questions. A system approach posits the existence of such overarching systems that are detached from how individuals perceive and interact with the world. Society is seen holistically as 'one that considers the actions of individuals not to have meaning divorced from the purpose they serve for the whole' (Martin 2001, p. 190). Accordingly, these types of accounts are not intuitively accessible and seem quite detached from how one acts in the world. It is not surprising that one of the most significant system theoreticians, Niklas Luhmann (1995, pp. xxxviii, xliv, 1, 4), began his classic *Social Systems* by stating that we would not feel 'at home' when reading his account. More importantly, the chasm suggests that systems operate at such a higher level that the importance of individuals is greatly reduced. They are cogs in the machine, so to speak. Furthermore, I would add that this chasm may help in explaining why there is such a gap between resilience's language, the pedestrian prescription found in the report and what has happened in transnational financial regulation.

Resilience falls into this predicament. While it makes sense to think of ecology in systems, the proposition becomes more fraught when considering the social. The consequence of culling intuitive accessibility, which is what a first-person view account offers, is that it sacrifices or hinders the possibility of perspicuously articulating social reality and how to control social forces (Heath 2009, p. 914). Ultimately, resilience produces what Benjamin McKean (2020) discusses in the context of neoliberalism, a disorientating effect. The enormity of the systems makes it seem futile to act, as further action appears to further the system whether one likes it or not. Acting becomes meaningless and defeated by the enormity of the challenge. Paradoxically, for powerful actors, which are those partaking in the financial system, resilience operates as a means of avoiding responsibility; for the less powerful, resilience operates as a disempowering mechanism.

The second way resilience's depoliticisation tendency appears relates to the issue of continual learning in the light of failures and crises to become more resilient. I remarked how resilience in the context of global governance involves the production and design of institutions so that governance and legal mechanisms can be appropriately aligned 'with the complex socio-ecological systems they seek to control' (Folke 2016). This outlook leads to a technocratic view of politics and law underpinned by 'strong notions of the possibility of rational and purposeful institutional design and policy-making' (Duit 2016, p. 373). Unsurprisingly, there is a lot of faith in flexible and network-based approaches such as 'stakeholder participation', 'sense making', 'local ecological knowledge', 'social learning', 'social memory' and 'bridging organizations' (Duit 2016, p. 372).

The process in which this is presented assumes that participants can rationally agree and achieve 'optimal' outcomes. Differently put, there is the belief that it is possible to reduce the level and intensity of existent disagreement, to develop solutions and to acquire new knowledge through recognised procedures (Barry 2012, p. 327). Accordingly, questions about 'contestation

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and conflict' are not seen as signs of uneven power relations but as opportunities for social learning. The actual stakes of a conflict are repurposed to further the system's resilience. While this chance of learning could be seen as a way to remedy certain 'imbalances' – that is, the conflict is translated as a failure of the eco-social systems, meaning that the remedy addressing the injustice needs to be incorporated – there is the underlying risk of misrepresenting the nature of the conflict (Grove 2018). In a way, it might also be that resilience misrepresents politics itself. Resilience, not unlike Habermas and his followers, operates with the background assumption that there is a sort of latent value-unanimity in society entailing the possibility of reaching consensus. But this glosses over the fact that politics is also a contestation over intractable disagreements that cannot simply be erased or sometimes contained. Resilience is unable to grasp that side of politics because conflicts are seen as 'irritations' that need to be smoothed over so as to achieve the 'right' institutional, political and legal balance for the sake of the system (Grove, 2018). Ultimately, there is then an in-built tendency to rely on technocracy or to be more comfortable in addressing technical solutions than the volatility and contestation that are typical to politics. The report is quite emblematic in this regard. It is a highly technical report that treats politics or geopolitics as a mere technical question that needs to be incorporated in a quantitative fashion. Furthermore, any further issue about the structure of the financial system is represented in technical ways, obscuring the political decisions behind certain understandings. Lastly, the process itself in which the report was produced follows the technocratic path.

Moreover, the rational underpinnings of resilience can have an exclusionary effect. Resilience is a universalising account of how the world works, and a highly modernist one at that, with the talk of systems, unpredictability, complexity, uncertainty and so forth (Grove 2018; Nelson 2020, p. 84). Like any system-orientated approach, much of the starting point is that the systems are self-referential – that is, they have spontaneously organised in a self-referential manner, establishing a separation between the system and the environment (Martin 2016, pp. 161–65). Considering this separation, it follows that to intervene to make eco-social systems resilient, one needs to act in ways tailored or assimilated to how eco-social systems operate. This is not to say that alternative understandings of social and ecological environments are rejected. The question is that resilience's insistence on continuous learning and adaptation involves mobilising new knowledge or information to 'generate new meanings, functions, and identities' (Grove 2018). The hope is the creation of a virtuous feedback loop in which the environmental information is repurposed so that the system becomes resilient while maintaining its identity. Any disturbance or indication of maladaptation becomes repurposed in improving the resilience of the eco-social system. Crucially, this has a status quo effect. This is what Walker and Salt suggest when they write that 'people, societies, ecosystems, and socio-ecological systems can all ... be subjected to disturbance and cope, without changing their "identity" – without becoming something else' (Walker and Salt 2012, p. 3). Maintaining one's identity while managing any disturbances involves maintaining stability. In one sense, this could be positive. As Grove remarks, resilience involves a disturbance that has occurred, which indicates that something is failing, generating new arrangements through the recombination of the elements of the system to produce 'new capacities, new desires, and new ways of sensing and managing the world' (Grove 2018, p. 222). The sense of failure thus indicates some exclusions, blind spots and limitations that must be addressed in order to enlarge the circle of those affected (Folke et al. 2007). In other words, issues of conflict and critique become translated through the language of resilience: social learning, flexibility and so forth. The problem here, of course, is that it blunts any critique because it recasts the issues through the current arrangements. Resilience then folds 'alternative forms of knowledge and practices' into existing systemic arrangements and ultimately prevents the emergence of alternative arrangements (Grove 2017). There is a defanging of the potential radicality of alternative approaches because they become domesticated in the high modernist language of resilience. One can think here of Nadasny's work showing the appropriation of indigenous approaches to land through resilience (Nadasny 1999). A similar observation can be discerned in the report. Despite its openness about

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what needs to be evaluated or the insistence on using imagination and judgment in how to think about possible states of the world, the report still clings to a broadly conventional economics-orientated framework. Imagination can ultimately be quantified. In other words, imagination is possibly defanged of any potential radicality as it needs to be 'translated'. Ultimately, resilience can have a deflationary effect. As Walker and Cooper noticed, resilience metabolises 'all countervailing forces and inoculates itself against critique' (Walker and Cooper 2011, p. 157) while furthering 'the will to manage' (Watts 2019).

6 Conclusion

Resilience has become a widespread grammar of how to be and act in the world. Part of its allure is that being resilient has positive undertones. While the circumstances in which one becomes resilient are not positive because the issue arises in contexts such as war, abuse, poverty and so forth, the fact that one is being described or presented as resilient is a positive one. It shows that one has the capacity to overcome difficult hurdles and to thrive, a survivor in short. At the same time, part of its appeal is its capaciousness (or under-determined) enough to comprise competing normative goals. Like any other popular concept, there is no one resilience but multiples. Its meaning shifts as it flows from one context to another (Grove 2018, p. 2). It appears as an ideology, a governmental rationality, a discourse, a metaphor or an idiom (Anderson 2015), which would also explain its popularity. Resilience seems to amount to no more than a 'buzzword' (Duit 2016), whereby the traces of the different meanings appear simultaneously or overlap, making it hard to pin down, and it is then put to use by actors with multiple and conflicting agendas.

This should not be seen as cause for despair. Instead, it suggests that resilience represents a universal mode of thinking (Dunn Cavelty et al. 2015); 'an abstract relation' (Grove 2018, p. 19) that can be deployed, mobilised or raised in order to understand, manage and solve particular problems in pre-established situations (Roger 2017, p. 13). It orientates actors towards specific aims and understandings, even if the practice of resilience might be contradictory. In this sense, resilience is geared towards the organisation, alignment and shaping of institutions and relations (Randall and Simon 2017, pp. 38–39).

Resilience's plasticity and contextual ambiguity suggest that resilience needs to be understood in how it intervenes within a particular discursive and material field. In light of its abstract quality, it might be possible to think of resilience as offering 'a foothold for subversive action' (Grove 2018, p. 7) but it can also be put to use in entrenching injustices. In the present article, we have seen how resilience is used as a means of foreclosing further inquiries into how the transnational financial system contributes to worsening structural injustices. The notion of uncertainty and unpredictability means that we cannot comprehend the social world and that we have to simply react, pushing away any uncomfortable question. Resilience's reactivity might be appropriate when we think about individuals trying to overcome suffering and disasters. But when we talk about powerful actors, resilience seems closer to an avoidance mechanism. Again, this should not be seen as a rejection of resilience. Like any other 'tool', how to harness its potential will depend on who uses it and how.

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