VOLUME 6 ISSUE 2 ARTICLES & ESSAYS

UNIVERSITY OF BOLOGNA LAW REVIEW

https://doi.org/10.6092/issn.2531-6133/14076

Received: 27 Jan. 2021 | Accepted: 14 Febr. 2021 | Published: 20 Dec. 2021

Law in a Time of Corona: Global Pandemic, Supply Chain Disruption and Portents for "Operationally-Linked (but) Legally Separate" Contracts

DEJI OLATOYE

Deji Olatoye is Partner at The Lodt Law Offices, Lagos, Nigeria. An independent researcher whose writing is informed by his experience as a practitioner, his interests include corporate governance, ESG, law and economics as well as law in diverse strategic business contexts–transactional, institutional and market. He was awarded the Deloitte Scholarship in Corporate Governance by International Corporate Governance Network, UK, in 2013. Deji Olatoye holds an LL.B from University of Lagos, Nigeria, and a Master of Corporate Law (MCL) from University of Cambridge. Gratitude to The Lodt Law Offices for supporting the research for this article with time and resources.

@ deji.olatoye@cantab.net; deji.olatoye@thelodt.net

0000-0001-5747-4694

ABSTRACT

The novel coronavirus (Covid-19) pandemic has resulted in the disruption of activities in major centres of global production, with adverse portents for contractual obligations across global supply chains. The global pervasiveness and dynamic propagation of the risks arising from contractual failures provides an opportunity to reconsider the nature and impact of mechanisms for excusing failure to perform contractual obligations under adverse circumstances (Excuse). Such mechanisms include those found in the general law (for example, frustration in common law and analogous doctrines in civil law traditions) and contractual clauses (for example, Force Majeure and hardship clauses). Establishing extant rights and obligations under current contracts may provide only limited illumination on how parties will address these failures. Principles in economics of contract (e.g. incomplete contract and transaction cost theories) and the commercial reality of global supply chains both suggest that parties tend to lean towards contract- and relationship-saving adjustments, rather than strict enforcement of rights. Therefore, this article analyses the doctrinal and contractual regimes of Excuse with a view to assessing their respective scopes for transaction and relationship saving. It also highlights the peculiar nature of supply chain relationships wherein exchange partners enter into a sequence of dyadic relationships aimed at delivering a good or service to the end user. The tension between that operational logic and the legal principle of privity of contract makes these relationships – undergirded as they are by what we call "operationally-linked (but) legally separate" (O.L.L.S.) contracts – peculiarly vulnerable to mismatches in their Excuse regimes.

CC BY

Mismatches occur where failure to perform a determinant contract is more easily or much earlier excusable than in a dependent contract within the same chain operation. This may, in turn, exacerbate risks of supply chain disruptions in a pandemic scenario. The article designs a framework by which the doctrine-contract complex in the regimes may be used to test the dynamic scenarios of a global pandemic for the purpose of scanning for such mismatches. This framework will be useful in both post-event circumstances, as parties embark on relationship-saving negotiations, and in designing ex ante risk management measures. Through the understanding of the peculiarity of supply chain relationships and the O.L.L.S. contracts, this article also proposes to open up new directions in which the insights therefrom might be useful. An example suggested and prefatorily explored in this article is in the "governance beyond privity" conundrum in the context of supply chain disruption. Another is its potential contribution to the emerging multifactorial approach to determining frustration of contract in some common law courts.

KEYWORDS

Contract Law; Force Majeure; Supply Chain; Covid-19; Incomplete Contract

JEL CODES

K120, L140, D860

TABLE OF CONTENTS

INTRODUCTION

The World Health Organisation [hereinafter W.H.O.] declared the novel coronavirus disease, Covid-19, a pandemic in the second week of March 2020.[1] This follows the spread of the epidemic from its ground zero in the Chinese city of Wuhan to about one hundred and thirteen other countries. At the time of that declaration, one hundred and eighteen thousand cases had been recorded, resulting in four thousand two hundred and ninety-one fatalities. By the end of March 2020, fourteen of the world's leading economies in gross domestic product terms[2] were on the list of the leading 20 hubs of the pandemic.[3] The sweep of the pandemic portends dire situations for global production and trade, or global value chains [hereinafter G.V.C.s]. To signalise the impact of the pandemic on the G.V.C.s, China is a major hub in global production networks and is responsible for twenty per cent of global trade in manufacturing intermediate products.[4] Its share of input in some products, for example computers, could be even larger by far.[5]

Following a rash of closures of ports of entry and effective wind-down of global logistics, the United Nations Conference on Trade and Development [hereinafter U.N.C.T.A.D.] predicts the impact of the pandemic on the world's economies as follows:

> The most badly affected economies will be oil-exporting countries, but also other commodity exporters, which will be losing more than one percentage point of growth, and those with strong trade linkages to the initially shocked economies. Countries like Canada, Mexico and the Central American region, in the Americas; countries deeply inserted in the G.V.C.s of East and South Asia; and countries in proximity of the European Union will likely experience growth decelerations between 0.7 and 0.9 per cent.[6]

---

[1] *W.H.O. Director-General's opening remarks at the media briefing on COVID-19 (Mar. 11, 2020),* https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020 (last visited Mar. 23, 2020).

[2] World Bank Group, World Development Indicators Database, World Bank, 23 December 2019, https://databank.worldbank.org/data/download/GDP.pdf (last visited Mar. 23, 2020).

[3] W.H.O., Coronavirus Disease (COVID-19) Dashboard,https://covid19.who.int (monitored on Mar. 27, 2020. The situation deteriorated significantly in the following months, with the same dashboard monitored on Sept. 21, 2020, at 4.30 p.m. C.E.T., showing that the total number of cases at thirty million, nine hundred and forty-nine thousand, eight hundred and forty as well as nine hundred and fifty-nine thousand, one hundred and sixteen deaths.

[4] *See* U.N.C.T.A.D., Global Trade Impact of the Coronavirus (Covid-19) Epidemic' (Mar. 4, 2020), https://unctad.org/en/PublicationsLibrary/ditcinf2020d1.pdf (last visited Mar. 27, 2020).

[5] *See* Fred Pearce, Confessions of an Eco Sinner: Travels to Find Where My Stuff Comes From 159-68 (2008).

[6] U.N.C.T.A.D., Coronavirus shock: a story of another global crisis foretold and what policymakers should be doing about it (Mar. 9, 2020), https://unctad.org/en/PublicationsLibrary/gds_tdr2019_update_coronavirus.pdf (last visited Mar. 27, 2020).

The impact of these mega-trends will not be unpredictable at firm level. The G.V.C.s, which represent 80% of global trade,[7] have been described as "globally dispersed and organisationally fragmented production and distribution networks."[8] These chains, or networks, of firms dealing across national and organisational boundaries are coordinated through models that span anything from the more hierarchical or vertically-integrated (governed through ownership or high managerial control) to the more horizontal (coordinated, more or less by a lead firm, through a chain of contracts). It also embraces complex systems such as intertwined supply networks [hereinafter I.S.N.s] defined as "interconnected [supply chains] which, in their integrity secure the provision of society and markets with goods and services".[9] Thus, while recognising that G.V.C.s span a broad range from multinational corporations [hereinafter M.N.C.s], at one end, to the loosest supply chains, at the other end, supply chain in this article is used as a catch-all for all manners of sequential, contract-based production synergies, whilst "G.V.C." is used when the meaning includes more hierarchical forms such as M.N.C.s.[10]

Regardless of the coordination model, contracts are important to the organisational logic of the G.V.C.s. Even M.N.C.s increasingly rely on contract-based strategies for global production, including offshore sourcing, subcontracting and licensing.[11] Meanwhile, besides global producers, logistics companies that facilitate supply chain activities now commonly pursue operational efficiency through contract-based strategies such as alliances, slot-sharing, dedicated terminals, and performance-based pricing contracts.[12] In the light of these complex linkages, any major disruption to production and logistical activities will, through backwards and forward risk propagation, adversely affect the ability of firms to perform interlinked contracts up and down the chains.

---

[7] *See* U.N.C.T.A.D., *World Investment Report: Global Value Chains – Investment and Trade for Development*, at xxii, U.N.C.T.A.D./WIR/2013, Sales No. E.13.II.D.5 (2013).

[8] Gary Gereffi, John Humphrey and Timothy J. Sturgeon, *The Governance of Global Value Chains*, *in* GLOBAL VALUE CHAINS AND DEVELOPMENT: REDEFINING THE CONTOURS OF 21ST CENTURY CAPITALISM 111-12 (2018).

[9] Dmitry Ivanov & Alexandre Dolgui, *Viability of intertwined supply networks: extending the supply chain resilience angles towards survivability. A position paper motivated by COVID-19 outbreak,* 58 INT'L. J. PROD. RSCH. 2904, 2906 (2020).

[10] In fact, Gereffi et al., *supra* note 8, have distilled five typologies of G.V.C. coordination from their analysis of relevant factors (*See infra* Section .5.2. for an overview of that analysis). *See also generally* Gary Gereffi, *Global Value Chains in a Post-Washington Consensus World*, *in* GLOBAL VALUE CHAINS AND DEVELOPMENT: REDEFINING THE CONTOURS OF 21ST CENTURY CAPITALISM 400 (2018).

[11] *See* Sara U. Douglas, Stephen A. Douglas and Thomas J. Finn, *The Garment Industry in the Restructuring Global Economy*, *in* GLOBAL PRODUCTION: THE APPAREL INDUSTRY IN THE PACIFIC RIM 5 (Edna Bonacich et al. eds., 1994).

[12] *See generally*Kum Fai Yuen & Vinh V. Thai, *The Relationship between Supply Chain Integration and Operational Performances: A Study of Priorities and Synergies*, 55 TRANSP. J. 31, 45 (2016).Citing Trevor D. Heaver, *The Evolving Roles of Shipping Lines in International Logistics,* 4 INT. J. MAR. ECON. 210 (2002).

A last notable outcome will be the loop-back of imminent massive failure of contracts into the larger economy. The financial sector will be impacted as many of the relevant contracts are typically underlain by financing supports. Major obligations that will be highly strained under the circumstances include those with respect to loans and credit support – letters of credit, overdrafts and term loans supporting working capital and procurement – as well as insurance of logistical activities, etc.. This may lead to cutback in the financial sector, with a spiralling effect on entire financial markets and broader economies.

Since the eye of the ripple will be the risk of failure of contracts, this is one key area that will engage the attention of commercial actors and their advisers in the coming months. We expect frenetic efforts to review relevant provisions of current contracts, with a view to ascertaining extant rights and obligations that may be affected or potentially triggered by failure to perform. Such efforts would also entail developing and assessing options for risk-avoidance, if possible, or risk-mitigation.

Most legal regimes recognise, to different degrees, the importance of relieving parties of contractual obligations where a supervening event has disrupted performance. Practices in contract drafting have both recognised and progressively developed terms from these doctrinal bases for excusing failure to perform [hereinafter Excuse].[13] Therefore, it is tempting to assume that most failed contractual obligations in the current circumstances of a global pandemic would be easily discharged. However, this article takes off from a different assumption. Outcomes will turn on the interplay of two factors. The first factor is the attitude of the parties to disruptive events in the larger context of their relationship. The other is the approach of the applicable regime – doctrinal or contractual – to the issues of defining the Excuse-making event, or its effect, and assigning legal consequence to it.

Different legal systems define the events differently, based on degrees of supervening effect that stretch from impossibility to mere commercial hardship. The latter, which arises from change of circumstance, is treated in some jurisdictions as a separate doctrine with distinct legal consequences (and does not usually support a case for immediate discharge). Worse, in some other jurisdictions, effects of a more commercial nature do not constitute a different doctrine and hardly provide ground for discharge at all.[14] This diversity makes the factual circumstances of businesses affected

[13] *See infra* note 37 for discussion of the distinction between uncertainties and ordinary risks and *infra* note 41 on how these are reflected in contractual practices.

[14] This disparity in legal consequences explains our preference for the term "excusing failure to perform" ("Excuse") over the more common term, contract avoidance, which tends to connote only a terminal consequence.

by Covid-19 an important factor. Those circumstances are themselves dynamic, so that, in a single jurisdiction, as the nature of the impact changes, it creates different degrees of supervening effect, thus triggering different grounds for Excuse as time goes on.

Before outlining the progression of the article, it bears justifying to centralise the law of contract in the examination of pandemic-linked disruption of supply chain performance. Eller has argued that the "dominant epistemology and social imaginary" of the law of contract is not a good fit for accounting for the role of law in G.V.C..[15] Thus, he has highlighted the limits of the "privileged lens" of contract law (a holdover from previous analyses of "contractual networks"[16]), even while acknowledging the central role of contract as a building block of the G.V.C..[17] At its core, his argument is that notions such as *common purpose* and *reciprocity*, which underlie contractual expectations, do not fully explain the legal nature of commitment by all categories of participants across the entirety of the chain. In his view, relative to the situation at the core of the G.V.C. – comprising the lead firm and the "first tier" participants – these notions grow weaker as we approach the periphery, or the informal tiers of participants. At the periphery, explains Eller, participation is better underlain by the factor of the *production logic* of the chain itself.[18]

Indeed, the notable privileging of contract law in emerging analyses of the G.V.C. has been reflected in scholarships that are directed at private governance of chain-wide risks.[19] These analyses are typically problematised – and therefore enriched – by consideration of the challenges that the fundamental principle of privity of contract poses to maintaining the span of control required in such an endeavour ("governance beyond privity"[20]). Typical risks in concern include production interruptions (which may be considered internal to the chain operation), media exposure, reputational risks, litigation threats, etc. (which arise from externalities).[21]

---

[15] Klaas Hendrik Eller, *Is "Global Value Chain" a Legal Concept? Situating Contract Law in Discourses Around Global Production*, 16 Eur. Rev. Cont. L. 3, 12-3 (2020).
[16] *Id.* at 14.
[17] *Id.* at 3.
[18] *Id.* at 15.
[19] *See, e.g.*, for scholarships taking this approach: Kishanthi Parella, *Reforming the Global Value Chain through Transnational Private Regulation*, 12 S.C. J. Int'l L. & Bus. 71 (2015). Kevin Sobel-Read et al., *Recalibrating Contract Law: Choses in Action, Global Value Chains and the Enforcement of Obligations Outside of Privity*, 93 Tul. L. Rev. 1 (2018). Jaakko Salminen, *Towards a Genealogy and Typology of Governance Through Contract Beyond Privity*, 16 Eur. Rev. Cont. L. 25 (2020). *But see, e.g.*, Frederick Mayer & Gary Gereffi, *Regulation and Economic Globalization: Prospects and Limits of Private Governance*, *in* Global Value Chains and Development: Redefining the Contours of 21st Century Capitalism 253 (2018) (stressing, through theoretical argumentation and empirical evidence, the "significant limits" of private governance in providing adequate governance capacity for the global economy).
[20] Salminen, *supra* note 19.
[21] *See* Parella, *supra* note 19, at 83 (the classification into "internal to operation" and "externalities" is ours).

Eller's view is that externalities in particular "are outside of the dominant frameworks of contract in its institutional economic reading."[22] Having regard to this understanding, he takes the view that the "normative and behavioural regularities" that underlie G.V.C.s operate in a milieu of political economy that is broader than that under which the centrality of contract law is fostered, the latter being characterised by elements such as *private autonomy* and *privatisation of enforcement* that lack "social embeddedness."[23]

There are reasons to both critique Eller's thesis broadly and justify why, in any case, its scepticism about the analytical importance of contract law is not relevant to our own purpose in this article. Firstly, contract law itself is not impervious to the social environment in which commercial actors generally transact business – whether at micro (relational) or macro (market) level. This is equally applicable to contract law in the context of the G.V.C.. The norm-shaping role of private governance – whether it be in enabling, constituting or regulating the G.V.C.[24] – is only one dimension of the relationship between contract law and the G.V.C.. There is equally a backward loop through which G.V.C. relationships and their milieus become norm-shaping, thus feeding into new ideas of what contract means within the G.V.C. setting. The importance of this second dimension will be underscored in various ways in this article. At relational levels, there is the "course of dealing" principle that is a valuable tool in judicial determination in the area of interpretation of contract.[25] Trade usage or custom plays a similar role in market settings.[26] Meanwhile, rules of the *lex mercatoria* are an example of broad institutional recognition of the norm-shaping acts of commercial actors.[27] At institutional levels, the old English court of equity has been cited as an example of judicial recognition of the commercial, and perforce social context of contract.[28] That these contractual norms are private does not mean that they are not social (or "socially embedded"). It may simply mean that they are not public (yet). In any case, the typical trajectory is for them to mature towards consideration for public recognition through codification[29] or judicial determination.

[22] Eller, *supra* note 15, at 17.
[23] *Id.*
[24] *See* Klaas Hendrik Eller, *Transnational Contract Law*, in Oxford Handbook of Transnational Law (Peer Zumbansen ed., Oxford: OUP 2020) (forthcoming 2020).
[25] *See infra* note 51.
[26] *See infra* text accompanying notes 45, 151 & note 51.
[27] *See infra* text accompanying note 151.
[28] *See infra* note 149 and accompanying text.
[29] *See, e.g.,* Nellie Eunsoo Choi , *Contracts with Open or Missing Terms under the Uniform Commercial Code and the Common Law: A Proposal for Unification,* 103 Columbia L. Rev. 50, 51 (2003). ("[U.C.C. §1-205(3)] also provides that trade usage and the parties' in "course of dealing" may aid in the interpretation of contractual terms", referring to a provision of Uniform Commercial Code, U.C.C. (Am. Law Inst. & Unif. Law Comm'n 1977), a model law that could be adopted as a statute by states in the U.S.).

Secondly, as would have been noted in our above classification of Parella's enumeration of the risks facing G.V.C.s,[30] externalities are but a class, while risks internal to G.V.C. operations are a separate category of risks. It is our view that, regardless of the merit of Eller's broader thesis (to which we do not pretend that our first point above is an exhaustive answer), the centrality of contract law stands unimpeachable in the analysis of the latter category. Covid-19-linked supply chain disruption, which is our own focus, falls in the latter category.

In this article, Part 1 explores economic explanations for the attitude of commercial actors to unplanned, disruptive developments. Following that, it explores evidence in the reality of how exchange partners in supply chain relationships (which are typically structured as long-term and business-to-business [hereinafter B2B] relationships) address what is referred to, in the literature, as supply chain disruption [hereinafter S.C.D.]. We find that the literature on both economics of contract and supply chain management supports the conclusion that the stance of commercial actors tend to be contract- or relationship-saving in such circumstances.

Part 2 is an overview of the doctrinal and contractual regimes of Excuse. While centring on the common law approaches (English and some other countries of the Commonwealth, as well as the U.S.), it draws comparison with the law in key civil law jurisdictions (French and German). It then follows with an insight into how contemporary contract drafting practices have advanced the area, using the examples of the *Force Majeure* and hardship clauses commonly found in international commercial contracts. The comparative analysis adopted in studying the legal regimes complements the interdisciplinary approach adopted in the article broadly by allowing us to explore how the structures and outcomes of these Excuse regimes support what we have established as the contract- and relationship-saving objectives of the parties.

In our analysis, we examine how each regime (i) defines the supervening event and especially the operative consequence (supervening effect) that it must have on performance (or hypothesis, in contract drafting) and (ii) allocates legal consequence to them (or, the regime). On the doctrinal grounds in particular, we find that jurisdictions differ in the flexibility or expansiveness of their approaches to the event-defining exercise and the strictness or restrictiveness of their attitudes to legal consequences. Regimes that tend towards the more flexible or expansive categories – and these are the civil law jurisdictions, doctrinally speaking, as well as contemporary contractual regimes – usually have a dual approach that allocate different consequences to the stricter and the flexible grounds for Excuse. Thus, not only are they more likely to permit events with

[30] *See supra* text accompanying note 19.

operative consequences of a more commercial nature under the flexible grounds, they also offer better opportunity for contract- and relationship-saving through adjustments by courts or the parties. While noting the limitations of the common law tradition in this regard, we are able to comment on an emergent development in the interpretation of contracts by some common law courts – to wit, the multifactorial approach – that appear to be opening up an opportunity for a more flexible outlook on the doctrine of frustration, even if we also draw attention to the current limitations of that approach.

In Part 3, we utilise insights from the foregoing analysis of the doctrinal and contractual grounds to formulate a doctrine-contract complex that captures the broad range of possible supervening effects excusable under the diverse regimes and applicable to a contractual relationship. We then integrate this with other insights – including those from a recent simulative study on the propagation of pandemic risks in the light of Covid-19 and our conceptual iteration of the nature of what we call "operationally-linked (but) legally separate" [hereinafter O.L.L.S.] – to formulate possible scenarios of supply chain contract failures under such dynamic and fast-evolving factual circumstances. In this regard, we match four such scenarios to the contract-doctrine complex to highlight how certain mismatches in the Excuse regimes that are applicable to the O.L.L.S. contracts could render the supply chain more vulnerable to S.C.D.. This framework could be useful in early review of contracts and in managing S.C.D. in a post-event situation such as that arising in the wake of Covid-19. Equally, it could be helpful in enhancing *ex ante* risk management measures in the supply chain – such as those built around resilience and other system safeguard measures against S.C.D.. Additionally, it could illuminate some factors that may come up for consideration by a court applying the multifactorial approach in the peculiar context of supply chain contracts.

In the conclusions, we reiterate the insights gained from our analysis and their significance for supply chain risk management, including in helping to further the closure of the notable gap created by the absence of consideration of the legal regime in the literature on supply chain risk management and G.V.C.s generally.

1. THE ECONOMICS AND COMMERCIAL REALITY OF PARTIES' BEHAVIOUR UNDER DISRUPTIVE CIRCUMSTANCES

1.1. ECONOMICS OF DISRUPTIVE CIRCUMSTANCE

There is sizable literature on the economic explanation of the legal regimes applicable to impossibility cases, especially regarding the optimal allocation of risks under different Excuse regimes.[31] However, our own focus is on the economic explanation of the attitude of commercial actors confronted by disruptive circumstances and how these are reflected in, shaped by or, have in turn shaped legal regimes.

By the very nature of the current crisis, its resolutions will be fundamentally different from that of the last major, global economic crisis. The financial crisis circa 2008, stemming as it did from the financial market, required interventions that are more broadly systemic and centrally coordinated by collective institutions (such as the central banks). Monetary policies through which central banks coordinate the market have historically been in the shadow of Walrasian theory of equilibriums and pricing,[32]or what has been called "monetary Walrasianism".[33] In the circumstance of a crisis that threatens financial stability, responses are more effective when applied on a systemic rather than idiosyncratic basis, even for controversial measures such as a bailout.[34] However, crises precipitated by the current pandemic will be different. The eye of the storm will be the failure of contracts at firm level. Under the circumstance, the bargain of economic actors will be hashed out at bilateral levels.[35] Therefore, post-Walrasian theories of contract offer better insight on the analysis of the nature of the problems and prediction of what those actors and institutions would do. The problems presented by supervening events for which the parties did not, and could not, have prepared emerge in the nature of radical upsets, or what Frank Knight has identified as *uncertainties*, as

[31] *See, e.g.*, Richard A. Posner & Andrew M. Rosenfield, *Impossibility and Related Doctrines in Contract Law: An Economic Analysis*, 6 J. L. Stud. 83 (1977). Marta Cenini et al., *Law and economics: The comparative law and economics of frustration in contracts, in* Unexpected Circmustances in European Contract Law 33 (Ewoud Hondius & Hans Christoph Grigoleit eds., 2011). For an economic analysis of the 2016 French reforms on the law of changed circumstance, and a comparison to the English law, see Mitja Kovac, *Frustration of Purpose and the French Contract Law reform: The challenge to the international commercial attractiveness of English law?*, 25 Maastricht J. Eur. L. 288 (2018).

[32] Leon Walras, Elements of Theoretical Economics or The Theory of Social Wealth (Donald A. Walker & Jan van Daal trans. & eds., Cambridge Univ. Press 2014) (1896).

[33] *See* Perry Mehrling, The New Lombard Street: How the Fed Became The Dealer of Last Resort 60 (Princeton Univ. Press 2011).

[34] *See generally* Javier Bianchi, *Efficient Bailout?*, 106 Am. Econ. Rev. 3607 (2016).

[35] This is not to suggest that centralised intervention by way of contract regulation cannot be one of the ultimate outcomes. Examples of current developments along this line are some of those to which reference is made later in this article, including the Chinese "Force majeure certificate" (see *infra* Section 2.2.1.a.), progressive development through the *lex mercatoria* (see *infra* note 46 for some contemporary examples) and even shift in judicial attitudes such as the rise of multifactorial approach to the doctrine of frustration in some common law courts (see *infra* Section 2.1.6).

distinct from ordinary *risks*.[36] The latter contingencies are of a different, simpler degree, for which the parties could make *ex ante* provisions.[37] The problem is also to be distinguished from those explained by *Incentive Theory*, in which the relevant constraint is information asymmetry between the contracting parties (whether with respect to the accuracy of *ex ante* information or hazard of *ex post* behaviour) and that are addressable by relevant incentives.[38] Risks explained by *Incentive Theory* are therefore endogenous to the contracting parties (what we might refer to as the "state of the mind" of the said parties). However, for the cases in concern, the relevant problems emerge in the circumstance of incomplete information about the "state of the world" in which the contract would be performed or enforced. This assumes the bounded rationality of either the contracting parties themselves or the external institution of collective coordination (coordination, that is, by an external institution, such as by the court to determine rights and to enforce performance). In the latter respect, the contract, or a contractual term, is considered "contractible" and therefore enforceable only if it is verifiable by that external institution. In *Incomplete Contract Theory* [hereinafter I.C.T.], which assumes the

[36] Frank Knight, Risk, Uncertainty and Profit (1921).

[37] *Ex ante* provisions could be made for these contingencies because, although often destabilising, they are largely foreseeable and their impacts relatively ascertainable even where they are exogenous and arise from cyclical events in the macroeconomic environment. A typical example is price escalation due to inflation or currency fluctuation. *See* Keith S. Rosenn, Law and Inflation 112 (1982). ("Much of the doctrinal basis for judicial revision of contracts that have become unduly onerous revolves around unforeseeability. But in modern economies inflation is hardly unforeseeable. Indeed, inflation has become the norm, and monetary stability the exception".) Another external trigger may be change in relevant law. Other such contingencies arise out of change in the internal affairs, usually the financial conditions, of the counterparty or the target of a transaction or the ripening of previously envisaged although undetermined fiscal obligations or legal risks. Whatever may be the case, a method may be devised, from an *ex ante* position, to adjust nominal pricing and other parameters of the transaction or to definitively allocate the risks of the event or otherwise bring about some stability and correct the upset. See *infra* note 41 for a highlight of some contractual mechanisms aimed at addressing contingencies of this nature.

[38] Incentive Theory assumes substantial or unbounded rationality (Savage rationality) in favour of the contracting parties, so that they have capability to substantially hazard and provide for all probabilities since relevant information is observable (at least one of them has complete information on each variable and all that is left, in view of possible information asymmetry, is to deploy a system of incentives to forestall opportunism by the parties). Information is equally verifiable since collective institutions of *ex post* resolution are fully informed of all factors that are relevant to the determination of the cases. For a discussion of the key arguments of Incentive Theory, Incomplete Contract Theory and Transaction Cost Theory, see Eric Brousseau, Jean-Michel Glachant & M'Hand Fares, *The economics of contracts and the renewal of economics, in* The Economics of Contract: Theories and Application 3, 3 – 30 (Eric Brousseau & Jean-Michel Glachant eds., 2004). For foundational literature on these theories, see the following: Leonard J. Savage, The Foundation of Statistics (2nd. ed., Dover Publications 1972) (1954) on unbounded rationality, which describes decision-making that assumes the decision-maker to be apprised of the two key variables relevant to decision-making, to wit: (i) the possible states of the world, and (ii) the consequences of each decision for each possible state of the world; George A. Akerlof, *The Market for Lemons: Quality, Uncertainty and the Market Mechanism,* 84 Q. J. ECON. 488 (1970) on adverse selection risks in Incentive Theory; Kenneth J. Arrow, Essays in the Theory of Risk-Bearing (1971) on moral hazard risks in Incentive Theory; Oliver E. Williamson, The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting (1985).(For transaction cost); Oliver Hart & John Moore, *Incomplete Contract and Renegotiation* 56 Econometrica: J. Econ. Soc'Y 755 (1988) for incomplete contract.

bounded rationality of the court, the relevant constraint is that regarding verifiability by the court. The court's ability to verify, *ex post*, relevant variables is impaired because the parties cannot make provisions to cover remote contingencies that impact performance, such contingencies not being predictable with reasonable certainty. Even where such contingencies are foreseeable, their ramifications may be difficult to fully grasp so that, regardless of the observability of their incidence by one or both of the parties, variables based on *ex ante* allocation of risks attendant thereon are not properly verifiable by the court. In *Transaction Cost Theory* [hereinafter T.C.T.], in which bounded rationality of the contracting parties is the assumption, the problem of *ex ante* observability of the contingencies by the parties or *ex post* verifiability by the courts may be possible, but only at a prohibitive cost. Thus, efforts to go at length to make *ex ante* explicit provision in the circumstance, if at all possible, may be prevented by "front-end" costs that are not justified by *ex ante* incentive (such costs including those in rent dissipation, negotiation and measurement).[39] Similarly, "back-end" costs may make economically impractical any effort by the party to prove the relevant contingency to the court for the purpose of verification. These transaction costs have a directly proportional relationship with the level of uncertainty, thus taking on a very significant role in long-term contracts such as those underpinning supply chains.[40] I.C.T. and T.C.T. help illuminate the issues arising from supervening events in, at least, two areas. Firstly, an understanding of the nature of the constraint explains the difficulty that parties face in reducing the supervening events into definitively allocated risks, unlike in other cases of predictable changes for which they are able to make provisions by way of, say stabilisation or review clauses.[41]

[39] Benjamin Klein, *The role of incomplete contracts in self-enforcing relationships, in* The Economics of Contract: Theories and Application 60 - 1 (Eric Brousseau & Jean-Michel Glachant eds., 2002).

[40] *Id.* Robert E. Scott & George G. Triantis, *Incomplete Contract and the Theory of Contract Design*, 56 Case W. Res. L. Rev. 187, 190 – 91 (2005). (for a description of the "front-end" and "back-end" aspects of transaction cost).

[41] *See* Marcel Fontaine & Filip De Ly, Drafting International Contracts: An Analysis of Contract Clauses 457 (2006). "Stabilisation clauses" was a generic term for the diverse contractual methods for "protecting the real value of the parties' bargain from changes in the value of money". *See* Rosenn, *supra* note 37, at 132. However, it is now more commonly restricted to clauses that seek to "freeze" the legal or fiscal regimes under which the contract was negotiated or otherwise correct the economic distortion resulting from any change in the regime. *See* Jenik Radon, *Negotiating the "right" Petroleum Contract*, *in* The Global Petroleum Context: Opportunities and Challenges Facing Developing Countries 48, 53 (UNDP Discussion Paper No. 6, 2009). The now more common "price escalation clauses" use methods that link pricing adjustment to the value of commodities or a more stable foreign currency or an official price index taking account of broader macroeconomic parameters. Clauses that deal with more endogenous contingencies include "earn-out clauses" that make payment of a portion of the purchase price contingent on future performance or (non)-occurrence of a prefigured liability. Another, the "material adverse change" [hereinafter M.A.C.] clause, allows a party to withdraw from the transaction, upon the occurrence of the contingency and before completion. Of course, this termination consequence of the M.A.C. clause makes it distinct from the stabilisation and adjustment clauses. Equally notable is that, the material change could result from the effect of exogenous risks (material adverse effect): *see* Lars Gorton, *The Nordic Tradition: Application of Boilerplate Clauses under Swedish Law, in* Boilerplate Clauses, International Commercial Contracts and the Applicable Laws 276, 293 (Giuditta Cordero-Moss, ed., 2011).

As we will show in Part 2 below, this difficulty explains the dynamism, often verging on aggression, with which contractual mechanisms are evolving to address increasingly complex circumstances, the key relevant examples, for our purpose, which are *Force Majeure* and hardship clauses.[42] A related insight emerges from a key assumption in I.C.T. that institutions of collective coordination, such as the courts, are equally constrained in the ability to "verify relevant variables".[43] This will be demonstrated later in the gradualness by which judicial and statutory interventions master the satisfactory ordering of the economic adjustments necessitated by distortions arising from supervening events.[44] T.C.T. further explains how this institutional weakness spurs certain developments in contract design. We could highlight two of them here. One such development is the increased use of the tools of bilateral coordination, such as renegotiation by the parties themselves, in addressing certain classes of unplanned circumstances that emerge in the life of the contract. Thus, there is an increased balancing of explicit allocation of risks ("commitment constraints") with provisions that are broadly descriptive of how obligations may be ascertained in the future ("flexibility constraints").[45] Another development is the increased private ordering of external resolutions through mechanisms that limit classical collective coordination via the courts. These mechanisms include adoption of dispute resolution clauses that resort to expert reference and commercial arbitral panels or adoption of market-determined contracting tools such as industry-defined terms, model clauses as well as trade customs and usage.[46] Gilson *et al* have articulated how these developments themselves emerge out of an exercise, by contracting parties, of party autonomy that fosters a contextualist approach in the interpretation of contract.[47] In their exposition, the authors explain, in essence, that:

1. At a low level of uncertainty, parties, by clarity and explicitness (the economists' "commitment constraint"), restrict the courts to the express terms (a textualist approach);

[42] *See infra* Part B.
[43] Brousseau & Glachant, *supra* note 38, at 10.
[44] *See infra* Part 2.
[45] Brousseau & Glachant, *supra* note 38, at 13.
[46] These contemporary attitudes, which ultimately weigh in favour of the survival of the contract, are captured in important documents of the *lex mercatoria* such as Principles of International Commercial Contracts, the Principles of European Contract Law and the Draft Common Frame of Reference and has been an influence in municipal contact law reforms as reflected in the 2016 Article 1195 of the French Code Civil. *See also* Kovac, *supra* note 31, at 289. On a significant implication of usage or trade custom for contract interpretation, *see infra* note 51.
[47] *See generally* Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Text and Context: Contract Interpretation as Contract Design*, 100 Cornell L. Rev. 23 (2014).

2. At a higher level of uncertainty, the parties adopt wider terms that allow the courts to import commercial standards as interpretative tools; and

3. As uncertainty increases further still, parties repair out of "centralised coordination" mechanisms to a more "collaborative process", or "bilateral coordination", for resolution by the parties themselves, by reducing the role of the "generalist court" ("flexibility constraints").[48]

As we would see in Part 2, contemporary contractual mechanisms reflect these attitudes.

The second area of illumination is very crucial to a prediction of what the parties would do under the circumstances of a global pandemic. Will the attitude of parties be to seek judicial determination or otherwise exercise unilateral rights under current contracts, with the possibility of terminating contracts, ending relationships and obtaining payoffs? Or will they remain under the bilateral coordination mode and take steps to save the relationship and possibly the transaction? The answer is already prefigured by what we have noted on the institutional weakness of centralised coordination and the consequent expansion of scope for bilateral coordination in contemporary contract-making. Bilateral coordination leaves room for parties to fill in the gap in light of improved ability to verify the variables through *ex post* assessment of the changed circumstance, rather than subject parties to hold-up risk wherein one party uses the courts to enforce a conceptually imperfect contract or "non-contractible" term.[49] In this regard, bilateral coordination (or "self-enforcement") supplements centralised coordination (or "court enforcement") as a tool of performance enhancement.[50]

The implication of this insight is that, in circumstances of incomplete contract, the *ex post* attitude of parties to performance is generally contract- and relationship-saving. This is the objective of supplementing mechanisms of centralised coordination or court-enforcement with those of bilateral coordination or self-enforcement in contemporary contract-making. Interestingly, *Incentive Theory* has an insight to contribute in this regard. Since shedding a contracting partner in a

[48] *Id.* at 66–7. Of course, economic considerations guide such exercise of autonomy in the choice of contract design. *See* Eric B. Rasmusen, *Explaining Incomplete Contracts as the Result of Contract-Reading Costs*, 1 Advances in Econ. Analysis & Pol'y (2001) (identifying factors like "unobservability, unverifiability, second-best incentives, fear of signalling undesirable characteristics, contract-writing costs, and legal default rules" as relevant to such consideration); *see also* Sugata Bag, Economic Analysis of Contract Law: Incomplete Contract and Asymmetric Information 7 (2018) (identifying other factors such as whether transaction takes place within "thick" or "thin" market – referring to the number of buyers and sellers – whether the transaction- or relationship-specific investments are to be made – such as with specialised goods – and whether such investment are to be made before performance is due).

[49] *See* Klein, *supra* note 39, at 61.

[50] *Id.* at 60.

long-term relationship would require selecting a replacement, new risks of adverse selection inevitably arise (an aspect of *switching cost*). The new relationship will present new incidence of information asymmetry that the old one has relatively overcome through previous dealings. Institutionally, it also presents new constraints in judicial determination, since one of the tools employed by the courts in interpretation of contracts is " course of dealing".[51]

In view of the foregoing, it is safe to essay that, in light of the potentially global ramifications of the Covid-19 pandemic, regardless of relative rights under the doctrinal grounds or in contract, parties are likely to adopt a bilateral approach aimed at contract-saving, with the possibility of renegotiation and, if relevant, adjustment of terms. The contracts, if well drafted, would be a helpful guide in this regard. The importance of a well-drafted contract should be underscored here, since, as we would demonstrate in Part 2, there has not been consistency across jurisdictions in the development of the doctrinal grounds to support the "self-enforcing" or "bilateral coordination" objectives of contracting parties.

1.2. SUPPLY CHAIN DISRUPTION AND RISK MANAGEMENT

Supply chain relationships are an example of the kind of long-term contractual relationships[52] that are vulnerable to the uncertainties of future variables, thus necessitating the contractual solutions articulated in economic literature. In supply chain management, *supply chain disruptions*. S.C.D. are "unplanned events that impede or stop the flow of materials, information, services or financial resources within and between the organisations of a supply chain involved in producing a good or service."[53]

[51] *See* Guenter H. Treitel, The Law of Contract 220–21, 213 (11th ed., 2003). Course of dealing or, in long-term, repetitive transactions, course of performance, arises in relational settings, whilst trade usage or custom has an analogous interpretative role in market settings. Thus, a court faced by the constraints of the absence of evidence in previous dealings may be benefited by applicable rules of the market as evidenced in trade usage or custom. For the discussions on the roles of "course of dealing" and "trade usage" or custom in the interpretation of contracts [albeit, not setting store on the larger debate about formalism (evidentiary sources for the parties' intention in the interpretation of contract) and the desirability or ranking of "course of dealing" and "trade usage" in the hierarchy of such sources], *see, e.g.*, Eunsoo Choi , *supra* note 29; Eyal Zamir, *The Inverted Hierarchy of Contract Interpretation and Supplementation*, 97 Columbia L. Rev. 1710 (1997). David Charny, *The New Formalism in Contract,* 66 Univ. Chicago L. Rev. 842 (Summer 1999). Alan Schwartz & Joel Watson, *The Law and Economics of Costly Contracting*, 20 J. L. Econ. & Org. 2 (2004). Ariel Porat, *Enforcing Contracts in Dysfunctional Legal Systems: The Close Relationship between Public and Private Orders: A Reply to McMillan and Woodruff*, 98 Mich L. Rev. 2459 (2000).

[52] *See* Tobin E. Porterfield, John R. Macdonald and Stanley E. Griffis, *An Exploration of the Relational Effects of Supply Chain Disruptions*, 51 Transp. J. 399, 412 (Fall 2012). (ascribing a long-term perspective to B2B supply chain relationships).

[53] *Id.* at 402.

Such events also tend to be unanticipated.[54] In short, they roughly approximate typical *Force Majeure* events in contractual clauses or those held to foist impossibility of performance in the doctrines. These are distinct from mere "risks from coordination of supply and demand".[55] They are also distinct from *supply chain disturbance,*[56] which are events with less severe effects and merely require future adjustment based on some predictable formula or methodology.[57]

In the context of broader discussions on supply chain risk management, S.C.D. highlights issues of supply chain vulnerabilities and how *ex ante* measures sometimes fail to foster system resilience.[58] Such *ex ante* measures are, in part, cognates of economic incentives that parties design to enhance performance in circumstances of Savage rationality and complete information. Failure of such measures and occurrence of S.C.D. raise issues of imperfect information situations occasioned by Knightian uncertainties that are better addressed through incomplete contract mechanisms.[59] For example, the objective of exchange partners to foster stability in a supply chain relationship is accomplished by two broad categories of strategy: *buffering* and *bridging*. Buffering strategies are unilateral steps taken by individual partners to mitigate the effect of S.C.D., for example, putting in place appropriate inventory management (such as maintaining safety stock) and establishing alternative supplier relationships.[60] Bridging strategies, on the other hand, are acts of bilateral coordination by which partners seek, through information exchange (backed by incentives, it might be said), to mitigate the risk of S.C.D..[61] However, it could also have a multilateral effect in the context of value chains underlain by the operational logic of O.L.L.S. contracts.[62] That being said, there is no reason to not combine these two strategies.[63] For example, parties could, in contract-making, express the intention of diversifying the sources of supply or otherwise

[54] *Id.* at 401–02.

[55] Paul R. Kleindorfer & Germaine H. Saad, *Managing Disruption Risks in Supply Chains*, 14 Prod. & Operations Mgmt. 53 (2005).

[56] *See* Porterfield et al., *supra* note 52, at 401.

[57] *See supra* note 41 and accompanying text for the economic analogue of this distinction and its legal cognate in contract drafting.

[58] Resilience itself is only one of the measures of system safeguard discussed in the literature. Others are stability, robustness and, lately, viability. *See* Ivanov & Dolgui, *supra* note 9 (introducing the concept of " viability" in respect of I.S.N.s and discussing the other safeguard measures). Our use of "resilience" in this article is a catch-all for all these measures.

[59] *See supra* Section 1.1.

[60] *See* Christoph Bode et al., *Understanding Responses to Supply Chain Disruptions: Insights from Information Processing and Resource Dependence Perspectives,* 54 Acad. Mgmt. J. 833, 834 (2011).

[61] *See* Dominic Essuman et al., *Operational resilience, disruption, and efficiency: Conceptual and Empirical Analyses*, Int'l J. Prod. Econ., November 2020, at 1, 9.

[62] Jaakko Salminen, *Contract-Boundary-Spanning Governance Mechanisms: Conceptualizing Fragmented and Globalized Production as Collectively Governed Entities*, 23 Indiana J. Glob. Legal Stud. 709 (2016). *See also infra* Part 3 for our suggestions on how this framework may be adapted to S.C.D. risk management.

[63] *See* Bode et al., *supra* note 60, at 836.

variegating the means of performance. As we will see later, the stipulated method of performance has implications in the Excuse regimes.[64]

Whilst studies have established that S.C.D. holds financial and operational risks for affected firms,[65] the literature has not significantly examined its effect on partner relationships.[66] A useful study has drawn inspiration from service failure literature in business-to-customer setting to develop an expository study on the effect of S.C.D. on supply chain relationships, which tends to be B2B.[67] Our own preliminary observation is that the role of the legal regimes generally – and implications of the structure and content of contracts, in particular – have been ignored in the emerging studies of S.C.D.. This observation is consistent with findings on the general marginalisation of legal regimes in emerging studies of G.V.C.s.[68] For example, in discussing the seven recovery factors that they identified as contributing to the post-S.C.D. recovery process, Porterfield, et al, did not highlight the role of contract provisions in any one of them.[69] Equally absent is the role of legal regime on the enumerated recovery outcomes.

In spite of this notable disciplinary insularity, we are able to draw a number of insights from the relational focus of Porterfield et al that support the hypothesis in contract economics and provide concrete evidence on the attitude of actors in global commerce to failed performance under disrupted circumstances. In the review of existing literature, Porterfield et al, highlighted insights from previous scholarly findings that may be summarised as follows:

- In view of its long-term nature, supply chain relationships tend to have an information-symmetrising dimension. Therefore, a break in the relationship, and consequent partner replacement, entails transaction costs.[70]
- The overriding objective of the partners in S.D.C. management is the restoration of the supply chain to a normal productive state.[71]

Furthermore, results from their own preliminary study came up with propositions that associate a positive relationship outcome, on the one hand, with factors such as a

[64] *See infra* text accompanying note 222 for discussion of the idiosyncratic string of decisions in the so-called Suez Canal cases that buck the general principle in this regard.
[65] *See* Porterfield et al., *supra* note 52, at 402–03, for a review of the literature on the financial and operational impacts of SDC.
[66] *See* Phil Greening & Christine Rutherford, *Disruptions and Supply Networks: A Multi-Level, Multi-Theoretical Relational Perspective,* 22 Int'l J. Logistics Mgmt. 104 (2011).
[67] *See* Porterfield et al., *supra* note 52.
[68] *See* IGLP Law & Global Production Working Group, *The role of Law in Global Value Chains: A Research Manifesto,* 4 London Rev. Int'l L. 57, 59-60 (2016).
[69] *See* Porterfield et al., *supra* note 52, at 418 (enumerating the seven factors as the following: teamwork, process input, responsiveness, accessibility, process fairness, honesty & effort as well as outcome equity).
[70] *See id.* at 403.
[71] *Id.* at 402.

collaborative recovery process, a perception of equitable outcome and, on the other hand, honest dealing. Apart from the importance of the process and teamwork to the partners, another significant finding from the study is that, unlike the case with B2C parties, supply chain partners tend not to be fixated on blame assignment and compensation.[72]

These insights clearly support the hypothesis that economic actors prefer bilateral coordination in the resolution of disruptive circumstances. Nonetheless, the study by Porterfield et al would have been enriched by a consideration of the legal regime as a factor. For example, in contemplating why partners treat blame and compensation as relatively unimportant in the recovery process, the scholars pointed in a number of directions for future scholarly pursuits. Notably absent is the possible role of contractual provisions that stipulate, or fail to stipulate, a protocol for coordinating the resolution of these unplanned circumstances. As we will demonstrate in Part 2.2, such provisions are not just a staple of contemporary contract-making, but are assuming ever-increasing importance.

To conclude this Part, in view of the insight from economic and management studies that transaction and relationship saving is an important objective of commercial actors faced with unplanned and disruptive circumstances, the robustness of a legal regime – doctrinal or contractual – in supporting the said objective should be considered a key attribute of that regime. In fact, that attribute might be considered a key determinant of the resilience of the legal regime in managing a widespread, disruptive development such as the Covid-19 pandemic. Therefore, it forms a key consideration in our analysis of the legal regimes in Part 2 below.

[72] *Id.* at 421.

2. FAILURE TO PERFORM – THE LEGAL REGIMES

2.1. EXCUSE UNDER THE DOCTRINES

Sanctity of contract – the principle that parties should be bound by their promises – *pacta sunt servanda* – is fundamental to the entire law of contract. Nonetheless, the general law in many legal traditions have rules that allow Excuse where a development arising after the making of the contract has a supervening effect on performance. Although such developments arise in the form of events, since the list of possible events could be infinite, they are better expressed in terms of the effect or operational consequence on performance (which we call "supervening effect").[73] The legal doctrines are therefore anchored on two issues: (i) defining the nature of the event, including, if not inherent, its supervening effect on performance, and (ii) the legal consequence. This approximates the two parts of a typical contractual clause: *hypothesis* and *regime*.[74] In this Part of the article, we examine how key jurisdictions of the common law and civil law traditions address these two issues.

As we will show, the supervening effects tend to generally stretch from the stricter ground of *impossibility* to more flexible grounds. Two types of differentiation occur in the legal traditions as the effects taper off towards the flexible end. The first is that of degrees, as the flexible effects in the civil law jurisdictions considered in this article extend as far as mere change of circumstance or commercial hardship. As will become clear presently, common law tends to be much more restrained in availing parties of Excuse as the effect moves in the flexible direction. The other type of differentiation is a corollary of the first and goes to the very structure of the doctrines. Unlike the case under the common law, the civil law jurisdictions tend to treat the law regarding mere change of circumstance as

[73] It is important to emphasise the effect as the animating aspect of the bare, producing event, a view that has been underscored in the emerging "multifactorial" approach to determination of frustration by courts in some common law jurisdictions, in which the *nature of the supervening event* is one of the factors to be considered and the effect of the event on the common purpose of the parties has been determinative of one of the cases. See *infra* Section 3.4.2 for a discussion of the New Zealander case of Planet Kids Ltd. v. Auckland City Council [2013] NZSC 147, [2014] 1 NZLR 159. In the American case of Hoosier Energy Rural Electric Coop. Inc. v. John Hancock Life Ins. 588 F. Supp. 2d 919, (S.D. Ind. 2008), the relative scope and unprecedented nature of the circa 2008 global financial crisis – and the foreseeability of its effect, relative to the insurance industry crisis of the 1980s – was a distinguishing factor between the case before the district court, where an Excuse was hypothetically admitted (hypothetical, since closure in the matter was reached by settlement) and the earlier case of Kel Kim Corp. v. Central Markets Inc. 519 N.E.2d 295 (N.Y. 1987) where an Excuse had been rejected [see, for discussion, Carlos A. Encinas, *Clause Majeure?: Can a Borrower Use an Economic Downturn or Economic Downturn-related Event to Invoke the Force Majeure Clause in Its Commercial Real Estate Loan Documents?*, 45 Real Prop. Tr. & Est. L. J. 731, 760 (2011). . Similarly illuminating, in this regard, is the practice in contractual regimes wherein the hypothesis in hardship clauses are drafted with two parts, namely: (i) the changed circumstance and (ii) its operational consequence, in essence, the effect (see *infra* note 176 and accompanying text [entire paragraph]).

[74] *See* Fontaine & De Ly, *supra* note 41, at 402.

a distinct doctrine and allocate them legal consequences different, in significant respects, from those of impossibility.[75] In this article, we call this a "dual" approach to Excuse.

Allocation of legal consequences include, not just the intervention of the law on the obligations of the parties, but also the much more complex issue of adjustment of any economic distortions that might have been occasioned by the disruption. In principle, the doctrinal grounds for Excuse results in "neutral" consequences. By this is meant that the obliged party is discharged from the affected obligation with the implication, in most cases, of equally discharging the counterparty of any mutual obligation and bringing the contract to an end. This is the case with the impossibility effects and, in jurisdictions where there is no dual approach to the doctrines, to the automatic consequence of Excuse generally. In this regard, the common law is referred to as a "closed" system because of the invariable application of this terminal consequence to all cases of Excuse.[76] In the "open" systems of the civil law, the distinct doctrinal consequence of Excuse for change of circumstance allows a more flexible approach whereby, before consideration of discharge and termination, a number of mechanisms, including bilateral coordination (e.g., renegotiation by the parties) and centralised coordination (i.e., adaptation by the courts) could be employed to attempt a correction of the economic distortion which occasions the Excuse and to keep the contract alive. This procedural approach of the "open" systems to the issue of economic adjustment is therefore different from that of the "closed" system. In the latter, economic adjustment, following discharge and termination, is by way of centralised coordination, albeit *a priori*, through substantive rules on loss adjustment, as developed by the courts and finessed under relevant statutes. These different approaches and outcomes are discussed further below.

[75] Merely recognising the structural differences in the doctrines, as we have done, is sufficient for our purpose here, although there is a rich debate on the relative doctrinal merits of the dual and unified approaches. *See, e.g.*, Tobias Lutzi, *Introducing Imprévision into French Contract Law - A Paradigm Shift in Comparative Perspective, in* The French Contract Law Reform: A Source of Inspiration? 89, 108 (Sophie Stijns & Sanne Jansen eds., 2016). (commending the German dual approach for its doctrinal coherence and its combination of certainty and flexibility based on the nuances of the events). Janwillem (Pim) Oosterhuis, *Commercial Impracticability and the Missed Opportunity of the French Contract Law Reform: Doctrinal, Historical and Law and Economics Arguments - Comment on Lutzi's Introducing Imprévision into French Contract Law, in* The French Contract Law Reform: A Source of Inspiration? 113, 128 (Sophie Stijns & Sanne Jansen eds., 2016).(which, while recognising the doctrinal coherence of the German approach, especially in light of the historical factors of post-W.W.II commercial uncertainties and the importance of the "good faith" principles in civil law tradition, has argued, in essence, that having a separate legal consequence for the more flexible Excuse is not a necessary quality of legal doctrine. He notes: "legal doctrine does not dictate the content of the remedy").

[76] Ewoud Hondius & Hans Christop Grigoleit, *Introduction: An Approach to the Issues and Doctrines Relating to Unexpected Circumstances, in* Unexpected Circumstances in European Contract Law 3–14, 10–12 (Ewoud Hondius & Christoph. Grigoleit eds., 2011). Janwillem Oosterhuis, *Unexpected Circumstances Arising from World War I and its Aftermath: "Open" Versus "Closed" Legal System*, 2 Erasmus L. Rev. 67, 67 (2014).

2.1.1. COMMON LAW: DEFINING THE SUPERVENING EFFECTS UNDER A UNIFIED STRUCTURE

In the common law tradition, the English doctrine of *frustration* developed from the hypothesis that an event has to make performance impossible for it to provide ground for Excuse. Impossibility could arise, for example, from the destruction of the subject of contract,[77] or the death or incapacity of a party in a contract for personal service,[78] or contract otherwise relying on personal skill or experience[79] or a change in the law that makes performance illegal.[80] Supervening *illegality* – has a unique quality, having regard to the public policy dimension to the consideration of the courts in relevant cases.[81]

The English doctrine has since expanded to cover more flexible supervening effects – to wit, *radical difference*.[82] Thus, an obligation would be considered frustrated even where there is no physical impossibility but performance would only be possible where the obliged party would, in essence, be required to perform a contract *radically different* from that undertaken by the parties.[83] *Frustration of purpose* is an example of such radical difference in the context of a contractual bargain to receive good or service whose original purpose has now failed by virtue of the intervening event before the time of delivery. This was the case in some of the "coronation cases". Meanwhile, American courts have developed *commercial impracticability*, a flexible class of supervening effect. A party is discharged of a contractual obligation where the party's performance is made "impracticable without his fault by the occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made."[84] It is to be noted, though, that the ground of commercial impracticability in American practice, is not cast as an alternative to, but as a practical restatement of the ground of impossibility since, in

[77] Taylor v. Caldwell (1863) 122 Eng. Rep. 309 (K.B.).
[78] Whincup v. Hughes (1871) L.R. 6 C.P. 78.
[79] Cooper v. Micklefield Coal & Lime Co. (1912) 107 L.T. 457.
[80] *See* Ertel Bieber & Co. v. Rio Tinto Co. [1918] A.C. 260.
[81] *See infra* note 133 for a discussion of the ramification of this public policy dimension on the freedom of the parties to freely allocate the risk of non-performance.
[82] *See* Krell v. Henry [1903] 2 K.B. 740 (one of the so-called "coronation cases" that arose from the postponement of the coronation ceremonies of King Edward VII in 1902, in which the hire of a property for the purpose of gaining a vantage view of the coronation procession was declared frustrated by the postponement since the hirer thereby had no use for the property); *See also* C.T.I. Group v. Transclear S.A. [2008] E.W.C.A. Civ. 856 (C.A.).
[83] *See* Davis Contractors Ltd v. Fareham Urban District Council [1956] AC 696 (Lord Radcliffe, via an *obiter dictum* in this case, articulated the test of "radical difference").
[84] Restatement (Second) of the Law of Contracts, §261 (Am. Law Inst. & Unif. Law Comm'n 1981). Regarding the sale of goods, a provision with similar effect can be found in state-adopted versions of the U.C.C., § 2-615. *See also* Transatlantic Financing Corp. v. United States, 363 F.2d 312 (D.C. Cir. 1966). *Cf.* Encinas , *supra* note 73 , at 754 (casting doubt on the existence of *impracticability* outside the context of the U.C.C. and as a general law in some American jurisdictions, for example, under New York law).

any case, supervening events do not always render performance absolutely impossible.[85] In this regard, impracticability could be taken as the American analogue of contemporary English frustration that, in practice, softens the sense of strictness conveyed by the notion of impossibility.[86] These more flexible effects are considered sufficient ground for Excuse since they cause radical transformation of the bargain of the parties into one not intended, although the American laws are bolder in highlighting its basis in the defeat of the economic logic of the bargain.[87]

Lastly, it should be noted that the principle of *sanctity of contract* creates a tension in the application of the above-mentioned supervening effects and holds the courts in check in how they deploy them to relieve parties of their obligations. This tension is best demonstrated in cases involving the more flexible effects. Thus, failure to perform will not be excused on the basis of adverse risks emergent from regular economic cycles or other incidences of normal commercial hardships that merely make the bargain less profitable to a party. For example, a mere change in market conditions such as currency fluctuation or inflation will not be a sound ground for Excuse,[88] nor would bad weather and labour shortages.[89]American doctrine of commercial impracticability also generally rules out these cyclical events with economically distortive effects.[90] Where however, incidents like increased cost and raw material shortage arise from "some unforeseen contingency which alters the essential nature of the performance," it may be considered a sound ground for Excuse on the basis of impracticability.[91]Thus, whilst we might have noted the relative importance of the supervening effect, it appears that, as the effect begins to taper towards these common economic distortions, the contingency of the

[85] *See* Restatement of Contracts §454 (1932) ("impossibility means not only strict impossibility but impracticability because of extreme and unreasonable difficulty, expense, injury or loss involved"). *See also* Encinas , *supra* note 73 , at 745–46.

[86] *See also* Restatement (Second) of the Law of Contracts § 265 (also covering relief of discharge in cases of "frustration of purpose" where, following the making of the contract, "a principal purpose is substantially frustrated").

[87] An economic analysis of the distinction has also been made. *Compare* Andrew A. Schwartz, *A Standard Clause Analysis of the Frustration Doctrine and the Material Adverse Change Clause*, 57 UCLA L. Rev. 789, 819-20 (2010) (suggesting that, while "impracticability" covers situations in which performance is frustrated because it can only be accomplished at a prohibitive cost, the English doctrine of frustration applies to situations in which the value to be gained from performance has fallen so far as to make the bargain meaningless), *with* Treitel, *supra* note 51, at 885 (in drawing a similar contrast, additionally suggesting that "impracticability" allows a supplier to avoid the obligation to deliver at prohibitive costs whilst English "frustration of purpose" allows a buyer to similarly demur in taking delivery where it has fallen so far as to be meaningless). *See supra* note 86 for the American analogue on frustration of purpose.

[88] *See* Albert Monichino QC, *Plummeting Market Prices: Frustration*, *Force Majeure or Hardship?*, AMPLA Y.B. (2015) (discussing Excuse in the context of fallen prices in global commodities trade in the 2010s).

[89] See Davis Contractors Ltd v. Fareham Urban District Council at 83.

[90] *See* U.C.C. §2-615 cmt. 4.

[91] *Id.*

event that triggers it takes on a more significant role in the determination of impracticability.

It is easy to see that this position is open to all manners of *ex post* risks, including moral hazard and hold-up that may be exploited by contracting parties. Consideration of those risks, perhaps along with the rigid legal consequences assigned to Excuse,[92] explains why the more flexible supervening effects have been a tough ground upon which to base a case for Excuse under the common law.[93] Evidence suggests that the ground of frustration of purpose in English courts practice tends to be available mostly for consumer contracts, rather than contracts between two parties with relatively balanced power relations.[94]

2.1.2. COMMON LAW: CLOSED APPROACH TO LEGAL CONSEQUENCES

As already noted, in common law, the obliged party is generally discharged from obligation of further performance of the frustrated obligation, without damages being awarded for failure to perform. Of course, such a discharge results in a concomitant discharge of the counterparty from further performance of mutual obligations. Under the English doctrine, depending on the nature of the obligation, this would effectively result in the termination of the entire contract. An exception to that rule would be in respect of an obligation that is severable – either because the contract itself is severable in nature[95] or the parties have by agreement made that obligation severable.[96] In such severable cases, a discharge only affects performance of the specific obligation while the rest of the contract survives.[97] Another exception is found under the doctrine of

[92] *See infra* Section 2.1.5 for a comparison of the legal consequences of Excuse under the common law and the civil law.

[93] *See* Rosenn, *supra* note 37, at 98–109 (analyzing the cases demonstrating the difficulty of justifying Excuse on the more commercial grounds under the common law); *see also* Lutzi, *supra* note 75, at 99.

[94] *See* Egidijus Baranauskas & Paulius Zapolski, *The Effect of Change in Circumstances on the Performance of Contract*, 118 Jurisprudencija 197, 203 (2009).

[95] For example, part performance – which generally is effectively non-performance – could nonetheless, in the context of severable obligations, leave as enforceable the agreed payment for the performed portion of the contract whilst damages lie for the unperformed portion [*see* Ritchie v. Atkinson 10 East 295 (1880) and Atkinson v. Ritchie10 East 530 (1809)]. By analogy, excusing non-performance of a severable obligation on grounds of frustration may nonetheless leave the other portion, if already performed or still performable, enforceable [*see* Stubb v. Holywell L.R. 2 Ex. 311 (1867). We discuss relevant statutory provisions with similar effect in the next two paragraphs of this Section 2.1.2.

[96] *See* Uri Benoliel, *Contract Interpretation Revisited: The Case of Severability Clauses*, 3 Bus. & Fin. L. Rev. 90 (2019).(showing, through empirical study of 500 contracts between "sophisticated parties", that parties include severability clauses to constrain the courts from taking a contextualist approach to determining the consequences of unenforceable contracts, the deliberateness of which attitude is further evidenced by the wide variation – in form and substance – of such clauses, that tend to be non-boilerplate).

[97] Note, however, that in the case of contractual severability clauses, they typically operate to moderate the legal consequence of discharge – usually by saving the clauses that effectuate economic adjustment – rather than keep alive the contract, broadly conceived. *See* Fontaine & De Ly, *supra* note 41, at 168.

temporary impossibility that some American courts have introduced regarding impossibility of brief spells that merely excuse performance "until it subsequently becomes possible to perform rather than excusing performance altogether." This has been applied in circumstances both, where impossibility due to a brief disruption was excused[98] and where obligation was reinstated rather than finally terminated on account of the brief nature of the disruption.[99]

Economic adjustment, following termination, addresses not just the value that has passed from the obliged party to the other in exchange for the discharged obligation. The law of unjust enrichment should be sufficient to enforce recovery in such a simple scenario.[100] However, the situation would typically be more complicated, as value of some sort might have moved either ways or the parties might have incurred costs of varying degrees before the discharge of the contract. In this scenario, termination of the contract without more would, on the balance, leave one of the parties with the short end of the bargain stick.

In the U.K., the approach to these problems has been to create substantive rules, first through the courts and then by legislation. Following an array of court decisions on economic adjustment that do not appear to align on the principles,[101] statutory intervention has brought a level of clarity into the matter. Under Section 1(2) of the U.K. Law Reform (Frustrated Contracts) Act of 1943, the mode of adjustment regarding prior monetary exchange would be as follows: (a) sums payable under the contract before the supervening event will cease to be payable (b) any sums actually paid by a party before the said event will be recoverable from the payee regardless of whether part performance has occurred before the event,[102] and (c) expenses incurred by a party in actuation of the contract may, at the court's discretion, be recovered where there is a prepayment provision in the contract and up to the exact amount expended (regardless of whether a portion of the loss has been covered through insurance proceeds)[103]. Where

[98] *See* Bush v. ProTravel lnt'l, Inc. 192 Misc. 2d 743, 752 (N.Y. Civ. Ct. 2002) (in which brief impossibility due to breakdown of communication facilities in Manhattan following the "9/11" terrorist attack in 2001 was excused). For discussion of this, and the case in *infra* note 99, see Encinas, *supra* note 73, at 746–47.

[99] *See e.g.*, Boston International of Miami v. Arguello Tefel, 644 F. Supp. 1423, 1427 (E.D.N. Y. 1986) (in which payment obligation, briefly disturbed by the obligee's presence in a territory with currency restrictions – impossibility due to illegality – was reinstated after the said obligee left that territory).

[100] *See* Fibrosa Spolka Akeyina v. Fairbairn, Lawson, Combe, Barbour Ltd AC 32 (1943).

[101] *See e.g.*, the decision in Chandler v. Webster 1 K.B. 493 (1904) (another of the "coronation cases" with facts similar to those in Krell v. Henry 2 K.B. 740 (1903)). Here, the hirer under the frustrated contract of hire did not just lose the bid to recover his deposit, but was also ordered to pay the balance of rent to the landlord. An opposite economic adjustment was effected in *Krell v. Henry,* in which the landlord under similar circumstances was ordered to refund the rent paid under the frustrated lease.

[102] This changed the position in a previous House of the Lords decision in which, unlike in *Chandler v. Webster*, *supra* note 101, refund of prior payment was ordered, but on the basis that there was total failure of consideration for the payment. *See* the *Fibrosa case, supra* note 100.

[103] *See* section 1(5) of the same act.

a party has conferred non-monetary benefit on another in actuation of contractual obligations before the supervening event, Section 1(3) of the Act allows the first party to recover a sum representing, in the court's judgment, *quantum meruit*, having regard to other factors such as expenses incurred by the benefited party and the impact of the supervening event on the benefit received.

This U.K. legislation has been influential in many commonwealth jurisdictions, but not uniformly so. In the Nigerian federation, for example, legislations with analogous provisions only apply in a handful of the thirty-six states of the federation,[104] so that the economic adjustment in consequence of frustration in the other states is still determined according to the unsatisfactory positions under common law.[105] Meanwhile, other jurisdictions have recognised the weaknesses of the U.K. legislation in addressing multifarious dimensions that economic distortion take by virtue of a frustrated contract.[106] For example, whereas under the U.K. Act, monetary and non-monetary obligations falling due prior to the frustrating event are treated differently, so that the former ceases to be payable under S. 1(2) whilst the latter remains undischarged under S.1(3),[107]a different treatment is applied under Section 7 of the Frustrated Contracts Act of 1978 of New South Wales, Australia, as both types of obligations would be discharged except as may be necessary to support a breach of contract claim.[108]

2.1.3. CIVIL LAW: DEFINING THE SUPERVENING EFFECTS UNDER A DUAL STRUCTURE

Doctrines roughly analogous to the supervening effects in the doctrine of frustration are found in the civil law tradition. Under German law, a contracting party has two levels of obligations – the principal obligation to perform the contract and the subsidiary one to pay damages for failure to perform.[109] However, by virtue of *unmöglichkeit* under the German civil code, a party is afforded Excuse on impossibility grounds, where there is an obstacle to performance that is both unknown to the said party at the time of contracting and not due to a default of that party.[110] Additionally, there is scope for Excuse on the

[104] These states include Lagos under the Law Reform (Contracts) Law of 1961 and the seven states formerly part of the old Western Region of the country under the Contracts Law of 1961 of that region.
[105] *See* Olaniwun Ajavi, Legal Aspects of Finance in Emerging Markets 301 (2005).
[106] *See e.g.*, *Frustrated Contracts Act 1978*, Ss 10 – 13 (New South Wales, Austl.).
[107] *See* Treitel, *supra* note 51, at 916 (criticising the state of affairs as a "*casus omissus*").
[108] *See* Andrew Stewart, Warren Swain & Karen Fairweather, Contract Law: Principles and Context 285 (2019) (last visited Apr. 2, 2020) (more fully discussing the novelty of the New South Wales statute).
[109] *See*, Bürgerliches Gesetzbuch [BGB][Civil Code], § 241 & 280, *translation at* http://www.gesetze-im-internet.de/englisch_bgb/englisch_bgb.html#p0722 (Ger.).
[110] *See* Code Civil [C.Civ.][Civil Code] artt. 275, 311a(2) (Fr.). Note that these provisions apply equally to obstacles to performance existing both at the time of the contract and afterwards, the former which would be "mistake" under English law while the latter would be "frustration".

much more flexible ground of change of circumstance. The ground of *wegfall der geschäftsgrundlage* (interference with the contractual basis), codified in the German law since 2002, affords Excuse where circumstances or material conceptions that form the basis of the contract changes so significantly that the parties would have entered into a different contact or not entered into it at all, were the change foreseen.[111] The French code civil provides a similar dual basis for Excuse. *Force majeure* provides ground for Excuse where an unavoidable event that could neither be reasonably foreseen nor controlled makes performance impossible.[112] On the other hand, *imprévision* (unforeseen contingency), newly introduced in the 2016 reform to French code civil, provides ground for *Excuse*, where an unforeseeable change of circumstance makes performance "excessively onerous for a party who had not accepted the risk of such a change." [113]

2.1.4. CIVIL LAW – OPEN APPROACH TO LEGAL CONSEQUENCES

The "neutral" consequences of the impossibility grounds under the German law means that the subsidiary obligation of a party to pay damages for failure to perform becomes unenforceable on account of the impossibility.[114] Any mutual obligations of the counterparty will be similarly unenforceable.[115] The French law similarly discharges the obliged party who has been affected by *force majeure* of the obligation of performance "to the extent of that impossibility."[116] The contract is also terminated by operation of the law. However, there will be no automatic discharge where the effect of *force majeure* is temporary, in which case performance is merely suspended for the period unless the delay thereby occasioned would justify proceeding to immediate termination.[117] Although contracts affected by the flexible "change of circumstance" grounds for Excuse in both jurisdictions could be ultimately terminated, they have a distinctive feature. This is the "adaptation" role of the court through which the court may, upon application, adjust the contract to suit the changed circumstance and restore commercial balance.[118]

[111] *See* BgB § 313 (Ger.).
[112] *See* C. Civ. art. 1218 (Fr.).
[113] *Id.* art. 1195. Before 2016, *imprévision* had been developed in the French administrative court and made applicable to contracts involving the government.
[114] *See* BgB § 311a, para. 2 (Ger.).
[115] *See id.* § 326.
[116] C. Civ. art. 1351 (Fr.).
[117] *See id.* art. 1218.
[118] *See* BgB § 313 (Ger.) and C. Civ. art. 1195 (Fr.). The German Civil Code is clear on the test that the court must adopt in setting about the task of adaptation. *See also* BgB § 313, para. 1 (Ger.) states that the court shall take account of "all the circumstances of the specific case, in particular the contractual or statutory distribution of risk" in making an alteration without which one of the parties cannot reasonably be expected to uphold the contract. The French Civil Code does not expressly stipulate any such guidance, although the contextual approach of the courts are to be taken for granted since the administrative courts developed its principles, taking into account the commercial instabilities in the years of the 20th century world wars (*see supra* note 122).

Termination may be ordered where such adaptation fails or, in the case of German *wegfall der geschäftsgrundlage* law, where it is not reasonably acceptable to a party.[119] In French *imprévision* law, the parties may themselves first renegotiate the terms of the contract (during which performance must continue) or, failing that, terminate it, although where such efforts fail or are unduly delayed, one party may apply to court for adaptation or termination. Another doctrinal difference in the laws of "change of circumstance" in these two jurisdictions is that, while under French law, the court has the discretion to order adaptation or termination, a German court must give preference to adaptation first before considering termination.[120]

2.1.5. COMMON LAW – CIVIL LAW COMPARISON

There are significant doctrinal differences between the English and the continental attitudes to *Excuse*. For one, and as should have been noted in the articulation of the laws above, the flexible effect – change of circumstance – under continental laws are not perfect analogues to the more flexible effects under the common law.[121] Radical difference, under the common law, is merely the more flexible effect in a continuum of the single doctrine of frustration that includes the stricter effect of impossibility. The same is the case for commercial impracticability, at one end, and impossibility, on the other, in American law. Being a single doctrine, both strict and flexible effects are assigned the same legal consequences. Commercial hardship will not avail a party of *Excuse* where its effect is not serious enough to constitute a radical alteration of the contract. On the contrary, *imprévision* and *wegfall der geschäftsgrundlage* are considered distinct doctrines from the impossibility grounds under the French and German laws. Therefore, as we have seen above, different legal consequences are assigned to them. Additionally, their "change of circumstance" basis more properly approximates what would be considered, in the common law courts, mere commercial hardship: i.e. impacts of events such as currency fluctuation, price escalation, etc. In fact, their historical development is linked to efforts at correcting the commercial impacts of economic distortions caused by major twentieth century events that disrupted Europe, including the two world wars.[122]

[119] *See* BgB § 313, para. 3 (Ger.).
[120] *See* Kovac, *supra* note 31, at 301 (for a consideration of the efficiency consequences of these two approaches).
[121] *Id.* at 304.
[122] The relative recentness of these "change of circumstance" provisions in French and German laws belies their longer history of development. In the case of French *imprivision*, its principles had long applied to government contracts in the administrative courts before the extension to commercial contracts under the 2016 code. In Germany, the 2002 codification of *Wegfall der Geschäftsgrundlage* follows years of the development of its principles by the courts. *See* Oosterhuis, *supra* note 75, Rosenn *supra* note 37, at 4 (for historical accounts).

Another doctrinal difference relates to the factor of foreseeability of the supervening event or its effect. Whether an event is foreseen or (reasonably) foreseeable could be tied to two separate, though connected, determinations: (i) as an inherent part of determining the supervening event or its effect, without more, or (ii) as an important factor in determining if risk of *Excuse* has been allocated. Continental systems tend to take these as separate determinations, so that whereas unforeseeability has to be present as well as other ingredients (uncontrollability/unavoidability and impossibility) for the relevant supervening effect to be established, *Excuse* may be denied if in any case, from the wordings or circumstances of the contract, the obliged party has undertaken the risk of failure. It cannot be assumed that by the mere fact of their being foreseeable, risks are automatically undertaken or assumed by one party or the other without a separate determination in that regard. There is an economic explanation for why a foreseeable risk is not necessarily allocated or assumed. It is postulated that an optimal rule for Excuse is that "the risk in concern must be an unforeseeable one, *where ex ante processing/description costs exceed expected benefits of having processed/described for such a contingency*."[123] Therefore, where the risk, though foreseeable, is very remote – in the sense of Knightian uncertainty – provision for it and therefore its allocation may present a cost that none of the parties was expected to undertake. A separate determination would show if it was indeed allocated to, or assumed by, one of the parties.

In their application of the provisions of Uniform Commercial Code,[124] the American courts tend to adopt an approach similar to civil law courts in this regard. They similarly require that the relevant event that would provide basis for *Excuse* should not have been foreseen or reasonably foreseeable.[125] However, in the three-step approach to availing a party of Excuse on the ground of commercial impracticability, the court, in *Transatlantic Financing Corp. v. United States,*[126] one in the first set of cases to interpret the provisions of U.C.C. § 2-615, treated determination of foreseeability ("contingency") separately from that of allocation of the risk of that contingency as well as that of the impracticability effect on performance.[127]

[123] Kovac, *supra* note 31, at 292 n. 13 and accompanying text (emphasis added).
[124] *See, e.g.* U.C.C. § 2-615.
[125] *See* McWilliams v. Masterson, 112 S.W.3d 314, 320 (Tex. App. 2003*); see* Kel Kim Corp v. Central Markets, Inc., *supra* note 73.
[126] Transatlantic Financing Corp. v. United States, *supra* note 84.
[127] *Id.* at 315.

The position in the English courts is not so clear. The decision in the case *WJ Tatem Ltd v Gamboa*[128] to the effect that the foreseeability of the event does not preclude the availability of frustration unless the parties expressly provide for it appears, on a cursory look, to be identical to that of the continental jurisdictions. However, this masks the confusing situation in the English courts where the two determinations stated above sometimes appear fudged so that, in some cases, enquiry as to the existence of the conditions for frustration might be the same as whether its risks are allocated with the foreseeability of the event playing a determinative role in that regard. Thus, a rash of *obiter dicta* have stated the position with inconsistency, with some affirming that foreseeability of the risk would preclude frustration[129] and others stating the contrary.[130] However, as we discuss later in this article a recent development in some common law courts – to wit, the multifactorial approach to cases of frustration – appears to be separating the two determinations as well as it is altering other aspects of the traditional common law approach to the doctrine of frustration.

Other significant factors tend to be influential on the decisions. For example, a plea of frustration was rejected because the risk was reasonably foreseeable only to the party making the plea and not to the other party.[131] However, the parties may, foreseeing the risk, agree expressly to preclude the application of the doctrine of frustration.[132] No such agreement would however be upheld where performance is affected by some forms of supervening illegality.[133] What is clear in the array of court decisions in this area is that they are bookended by two fundamental principles of contract in common law, namely: *freedom of contract* (by which it is sound reasoning that general doctrine should defer to the express intention of the parties to allocate the risks of failure to perform) and *ex turpi*

[128] [1939] 1 K.B. 132.

[129] Davis Contractors Ltd v. Fareham Urban District Council AC 696 (1956).

[130] Ocean Tramp Tankers Corporation v. V.O. Sovfracht *(The Eugenia)* 2 Q.B. 226 (1964) (taking the approach that foreseeability is irrelevant if the parties do not expressly provide for it, which is in tandem with the principle of freedom of contract).

[131] Walton Harvey Ltd v. Walker & Homfrays Ltd 1 Ch. 274 (1931).

[132] *See* Lord Denning's obiter dictum in *The Eugenia*, *supra* note 130, at 239 (stating that "[i]t has often been said that the doctrine of frustration only applies where the new situation is "unforeseen" or "unexpected" or "uncontemplated" as if that is an essential feature.... The only thing that is essential is that the parties should have made no provision for it in the contract.").

[133] *See* Ertel Bieber & Co v. Rio Tinto Co Ltd A.C. 260 (1918) (for a case of trading with enemy aliens). However, unlike the case in trading with enemy aliens, it is possible to exclude the doctrine and allocate the risk of non-performance in some cases. This is possible in some prohibition cases, where, on interpretation, the intention of the parties is not to subvert a legal prohibition, but some other clearly legal means of saving the transaction, such as temporary suspension, has been adopted and the allocated risk, say some form of payment, merely serves as economic adjustment for avoiding the immediate illegality. *See* Treitel, *supra* note 51, at 887–88 (expressing the view that the unrelieved frustration of trading with an enemy alien, unlike some other cases of prohibition, is a *suis generis* case and especially based on strong public policy consideration).

causa non oritur actio (by which reasoning no express allocation of risk should be enforced so as to aid an illegality even where it arises *ex post*).[134]

As the above shows, the approach in the "closed" systems of the common law has had some troubled outcomes. The creation of *a priori* substantive rules on economic adjustment demonstrates what we have noted as the weakness of centralised coordination in cases of Knightian "uncertainties". Automatic discharge and termination of the contract itself bucks what we know about the contract-saving attitude of parties in such circumstances and the preference for bilateral coordination in that regard.

The "open" system of the French and the Germans creates protocols by which economic distortions arising out of Excuse could be adjusted and the contract saved.[135] This is accomplished through the adaptation powers of the court or, before that in French *imprévision* law, renegotiation by the parties. In the English closed system under which discharge and, in most cases, termination of the entire contract is the invariable consequence, solutions to economic distortions have turned on development of elaborate substantive rules first by the courts and later by statute.

2.1.6. MULTIFACTORIAL APPROACH: A CONTEXTUAL TURN IN COMMON LAW EXCUSE?

Finally, recent developments in the law of frustration in some common law jurisdictions should be noted. The introduction of the "multifactorial" approach to the test by which a case of frustration may be determined departs from the now classical *radical difference* test. In the English case of *The Sea Angel*,[136] Rix L.J. laid down the multiplicity of factors that the court should evaluate while considering whether a case of frustration has been established. These are:

1. Terms of the contract;

[134] The maxim meaning, in précis: "the courts will not aid an act founded on illegality", encapsulates a doctrine that, admittedly, is better developed in *ex ante* illegality of contract as well as in the Law of Tort. *See* Dov Goldberg, *Does the Doctrine of Not Enforcing "Illegal Contracts' Really Work? A Comparative Law Study* (November 10, 2010), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1707005 (last visited Mar. 27, 2020) (for an analysis of its application in contract and tort laws). However, application of the maxim to cases at both the making and the performance phases of contracts is encapsulated in the American Restatement (Second) of the Law of Contracts § 178.

[135] *See* Oosterhuis, *supra* note 76 for a comparative analysis of the closed and open systems in Europe. It is to be noted that the article was published before the 2016 reform that now makes the French system an "open" one. Before then, only the administrative court applied the doctrine of imprévision to justify adaptation of government contracts that are disturbed by change of circumstance or commercial hardship (*see* Oosterhuis, *supra* note 76).

[136] *Edwinton Comm. Corp. v. Tsavliris Russ (Worldwide Salvage & Towage) Ltd (The Sea Angel)* 2 All ER (Comm) 634 (2007); or EWCA Civ. 547 (2007); 2 Lloyd's Rep 517(2007).

2. Its matrix or context of the contract;

3. The parties' knowledge, expectations, assumptions and contemplations as to risk at the time of the contract insofar as could be ascribed mutually and objectively;

4. The nature of the supervening event; and

5. The parties' reasonable and objectively ascertainable calculations as to the possibilities of future performance in the new circumstances.

Although this approach has been developed for application at the first of the two levels of determination by the court – that is, on whether the event put forward has frustrated the contract – it is motivated by the same impetus as that which guides civil law judges in making adaptation decisions (adaptation, it should be recalled, is a second level decision that deals with the consequence of the initial determination). Judges applying the multifactorial approach have stated factors like "fairness and justice" and "demands of justice" as the motivating force for the emergent approach.[137] It helps forestall the possibility that contractually allocated risks between the parties are inadvertently reversed and the cause of justice thereby defeated.[138]

This approach holds some significance for the development of this area of law in the common law tradition. Firstly, it has brought some clarity to the two determinations regarding foreseeability and risk allocation or assumption as discussed earlier.[139] In the enumeration of the multiple factors stated above, factor number (*v*) deals with foreseeability while factor number (iii) deals with risk allocation.[140] To illustrate this point, in the New Zealand case of *Planet Kids*,[141] one of those in which the approach was meticulously applied and the factors considered *in extenso*, the court had distinct considerations, *inter alia*, of: (a) the contractual clause on allocation of risks (b) foreseeability of the event and (c) establishment of frustration. In that case, the questions revolved around whether a settlement agreement between the respondent city council and the appellant institution (wherein the appellant was to be compensated for surrender of a property leased from the council under an extant lease agreement) was frustrated by the destruction of the property by fire before the date of surrender. By its provision, the lease agreement was to be terminated upon destruction of the property.

[137] *Id.* ¶ 113 .
[138] Lawtext.com, *Analysis and Comment: The Sea Angel*, Journal of International Maritime Law 13, 388, 390 – 391 (2007), http://www.lawtext.com/pdfs/sampleArticles/jiml13-6AnalysisDRT260208.pdf (last visited May 15, 2020).
[139] *See supra* Section 2.1.5.
[140] *See* Monichino, *supra* note 88, text accompanying n. 56.
[141] *Planet Kids Ltd v. Auckland City Council* NZSC 147 (N.Z.) (2013).

The council canvassed this to mean that, having regard to the fire incident, there was no leasehold to surrender and the obligation to pay compensation under the settlement agreement was thereby frustrated since such a payment would now be radically different from what was contracted for. Of relevance was that the settlement was effectively hashed out in lieu of an alternative procedure for the acquisition of the property under the relevant legislation.

On the issue of risk allocation, the court, whilst holding that contractual allocation of risk could preclude the doctrine of frustration in respect of the concerned risk, stated that other material factors could nonetheless frustrate the contract. Ultimately, the court came to the conclusion that no determination on risk allocation was required by the circumstances of the instant case, since the risk concerned in the case was different from that for which provision was made in the settlement. On the issue of foreseeability, whilst the court accepted the interpretation that the destruction of the property being included as a ground for termination of the lease agreement made that event a foreseeable risk, it was merely one of the relevant factors to be considered in a multifactorial analysis aimed at ultimately determining the question of frustration. Glazebrook J. stated the position of the Supreme Court of New Zealand thus:

> A foreseen event will generally exclude the operation of the doctrine, but the inference that a foreseen event is not a frustrating event can be excluded by evidence of contrary intention. When an event is foreseeable but not foreseen by the parties, it is less likely that the doctrine of frustration will be held to be inapplicable. The degree of foreseeability required to exclude frustration is high. The supervening event must be one that any person of ordinary intelligence would regard as likely to occur. Further, not only must the supervening event be foreseeable but its consequences or effects on the contract must also be foreseeable. The inference that an event that is foreseeable may exclude frustration can also be displaced by evidence of contrary intention.[142]

The ultimate determination, on the balance of factors, was that the settlement agreement was not frustrated. Relevant to that determination were the following factors:

1. The ultimate achievement of the common purpose of the settlement agreement, having regard to the objectives of the individual parties, the said purpose being "to settle the Public Works Act dispute and thus to achieve certainty that Planet Kids'

[142] *Id.* ¶ 158. The court's exposition conforms to economic analysis that remoteness of a risk may defeat any presumption that risk is assumed by the fact of its foreseeability. See *supra* text accompanying note 123.

lease would be terminated, to identify the timing of that termination and to set the amount of compensation payable for the consequential closure of Planet Kids' business";[143]

2. The balance of hardships that would be against the appellant, which would lose both possession and compensation for such loss if the settlement was declared frustrated; and

3. The foreseeability of the risk of termination of the lease.[144]

The multifactorial approach would appear to be turning a contextualist bend in the common law of contract. The faithfulness of common law courts to the bargain of the parties – based on a rhetorical commitment to the principle of sanctity of contract – is also reflected in the textualist commitment to the express provisions of the contract.[145] This general approach of not taking liberties with the expressed intention of the parties is one key reason why judicial attitude has not moved towards the adaptation practices similar to the civil law courts.[146] Adaptation allows courts to take exogenous matters (to wit, the altered economic balance) into consideration to re-balance the bargain of the parties. The approach, in common law, of terminating the contract first, before proceeding on loss adjustment would seem to have avoided such "intrusion" on the bargain of the parties. The courts applying the multifactorial approach now appear to have imported the contextualist position. Of course, the courts have always recognised that the "special exception which justice demands"[147] is a rationale for the doctrine of frustration. The new approach merely now recognises that the said demand requires not just the true construction of the contract but also a consideration of all the relevant circumstances that justice demands.[148]

In our view however, application of contextualism at the first level of determination misses the additional benefit of adaptation and the opportunity to save the contract. If the multifactorial approach is to succeed and become widely influential across the common law world, there needs to be a reconsideration of the half-hearted

[143] *Id.* ¶ 96.

[144] *See supra* note 141, at 164 – 167; *see* David MacLauchlan, *"Frustration" in the Court of Appeal*, (June 21, 2013), https://ssrn.com/abstract=2283094 (last visited June 12, 2020) (for a criticism of the prior judgment of the New Zealand Court of Appeal that was reversed in this case, with the writer's argument essentially anticipating the reasoning in the later Supreme Court decision).

[145] *See* Gilson et al., *supra* note 47, at 34–36.

[146] *See* Baranauskas & Zapolskis, *supra* note 94, at 203.

[147] Per Lord Summer in Hirji Mulji v. Cheong Yue Steamship Co Ltd AC 497, 510 (1926), as cited in the *Sea Angel's* case, supra note 136.

[148] *See also* Jamil Mustafa, *Frustration: A New Approach for the 21st Century?* (12.00, July 25, 2017) http://www.keepcalmtalklaw.co.uk/frustration-a-new-approach-for-the-21st-century-/ (last visited June 6, 2020)

contextualism implicated in its outcome. Could legal reforms allow a fuller embrace of the contextualist implication of this approach by permitting the courts to utilise it, not just in establishing a frustrating event for the purpose of terminating the contract, but to correct the distortive effect of such an event in deserving circumstances with the aim of keeping the contract alive? After all, as we have shown already, the contract-saving objective is supported by insights from contract economics and the reality of commercial attitudes. What is more, it has been argued by some scholars that contextualism is not such a strange animal in the terrain of common law after all, having regard to the roles of the old English courts of equity.[149]

2.2. EXCUSE IN CONTRACTUAL CLAUSES

There are a host of reasons for commercial actors not to be wholly satisfied with the doctrinal basis for Excuse. Tensions between the fundamental principles of *freedom of contract* and *sanctity of contract* continue to reflect on the uncertainty in this area. This is especially so with the flexible effects and their legal consequences, regarding which the doctrinal distinction between the legal traditions tend to be much starker both in the degree of flexibility permissible and the structure of the doctrines. Furthermore, the "neutral" consequences of the doctrinal grounds deny the parties a variety of other options for controlling outcomes. In this regard, the civil law admittedly offers more flexibility than the common law system. While it could be argued that parties should exercise autonomy in choosing the "better" law to govern their contract, the single factor of flexibility cannot be wholly determinative of the overall choice of law. For example, English law, for a variety of reasons, is still the most frequently selected as governing law in international transactions.[150] In this circumstance, it appears a better use of party autonomy to go *in extenso*, in the contract, to state the substantive rules that would govern unplanned events and their supervening effects.

For these and other reasons, commercial practices have evolved solutions by way of contractual clauses that give the parties control over the hypothesis and legal consequences of such events. These clauses are so commonly utilised and well-developed that many of them are fairly standardised in trade custom and usage, thus forming part

[149] *See* Gilson et al., *supra* note 47, at 49 & 50 [note, however, that the authors are careful to argue that contemporary courts that would play an analogous role to those of fifteenth century equity courts must, per force, upgrade to the level of sophistication that would enable them properly contextualise the range and complexities of modern economic activities (*see id.* at 46)].

[150] *See* Gilles Cuniberti, *The International Market for Contracts: The Most Attractive Contract Laws*, 34 Nw. J. Int'l L. & Bus. 455, 475 (2014) (demonstrating, through empirical study, that the factors that privilege English law are not always intrinsic to the quality of its rules).

of the *lex mercatoria.*[151] The two notable clauses in this regard are *Force Majeure* and hardship clauses.

Although the method for drafting *Force Majeure* or hardship clauses is continuously evolving, there is a two-phased structure to them similar to the doctrinal grounds for Excuse. The two phases are: (a) defining the events or circumstance, or otherwise identifying conditions under which performance, in the manner agreed, would be impossible or commercially hard (*hypothesis*) and (b) stating the legal consequence, including stating the protocols for saving the transaction by adjusting the mode of performance through future renegotiation and, failing that, an orderly termination and, if necessary, allocation of losses (*regime*).[152]

2.2.1 *FORCE MAJEURE* AND HARDSHIP CLAUSES: THE HYPOTHESIS

2.2.1.A. *FORCE MAJEURE* CLAUSES - "EPIDEMIC" ITEM AND PROBLEM OF INDETERMINACY

Force Majeure and hardship clauses are close analogues, respectively, of the stricter and the flexible ends of supervening effects in the doctrines. In fact, as the name suggests, *Force Majeure* in contractual practice developed from the *force majeure* in French doctrine.[153] The hypothesis of *Force Majeure* clauses is stated in terms of defining the applicable disruptive events (*Force Majeure* events). *Force Majeure* events are either (a) broadly defined by reference to the classical doctrinal elements of the event such as supervening impossibility, unforeseeability and uncontrollability (or unavoidability), or (b) by enumeration of the nature or categories of events that are to be regarded as *Force Majeure* event. In applying the definition technique, parties have been known to

[151] *See* Peter Mazzacano, *Force Majeure, Impossibility, Frustration & the Like: Excuses for Non-Performance; the Historical Origins and Development of an Autonomous Commercial Norm in the CISG*, 2012 Nordic J. Com. L. (Issue 2011 #2) 1, at 54. https://www.researchgate.net/publication/228204507_Force_Majeure_Impossibility_Frustration_the_Like_Excuses_for_Non-Performance_the_Historical_Origins_and_Development_of_an_Autonomous_Commercial_Norm_in_the_CISG/citations (last visited June 17, 2020)

[152] Stating these two parts clearly is important as a mere inclusion of, say, the term *Force Majeure* as a hypothesis without stating the regime could lead to *déceçage* (incompatibility) if the governing law of the contract does not have *force majeure* as a general doctrine. In such a circumstance, the court cannot fill the gap by allocating a legal consequence under the general law. *See* Fontaine & De Ly, *supra* note 41, at 407. *See* British Electrical and Associated Industries (Cardiff) Ld. v. Patley Pressings Ltd. 1 WLR 280 (1953) [where a clause stating the contract to be subject to "force majeure conditions" (a term that was not defined) was declared void for uncertainty). *See Kel Kim, supra* note 73, at 296 (where a New York court stated that no "expansive meaning" would be given to a *Force Majeure* clause so as to give recognition to an event that is not specifically enumerated therein).

[153] For purposes of clarity, we have used the italicised *force majeure* for the doctrinal concept, the capitalised *Force Majeure* in the context of contractual clauses and the quoted "force majeure" in contexts which refer to both or either of the two senses.

sometimes omit or attenuate one or more of the three elements highlighted above. The typical events listed in the enumeration techniques are those that foist legal or physical impossibility on the parties' ability to perform.[154] Meanwhile, either technique could be used solely or in combination with the other. Where they are used in combination, the enumerated events usually serve to illustrate the broad definition, but it could be drafted to limit it in some cases.[155]

While critiques have been developed on the different techniques and approaches to the hypothesis of *Force Majeure* clauses,[156] it is useful to highlight here how the case of "epidemic" (or, rarely, "pandemic")[157] as a *Force Majeure* event illustrates some of the complications entailed in enumeration-involved approaches, even while underscoring some peculiarities of its own. For example, when considering a list that appears definitive, does the absence of an actual event on the list obviate the determination of a *Force Majeure* event otherwise? In a review of the over twenty *Force Majeure* clauses produced in an influential book of precedents,[158] "epidemic" is specifically listed as a *Force majeure* event in only six of them. In the circumstances of Covid-19, failure to have specifically listed "epidemic" as a *Force Majeure* event may, generally speaking, limit the ability of affected parties to invoke *Force Majeure* on the basis of the pandemic, especially where an outbreak has not (yet) directly affected their location – perhaps due to the fortune of location or time. Nonetheless, this would not be solely determinative of the question whether a *Force Majeure* event has actually occurred. Other connected events could arise. An example would be where an outbreak of the pandemic elsewhere has triggered government containment actions or S.C.D. that directly affected the relevant party.[159] In addition to the possibility of relying on the item of the *Force Majeure* clause enumerating governmental action, affected parties, it has been argued, also stand a good chance of being covered by the item "Act of God", one of the most common items in the enumeration approach to *Force Majeure* clauses.[160]

[154] For an extensive overview of *Force Majeure* events that have been found in an array of international contracts, see Fontaine & De Ly, *supra* note 41, at 408–13.

[155] *See id.* at 414.

[156] *See id.* at 402–18 for an analysis of diverse techniques and approaches to developing hypotheses for *Force Majeure* clauses, and a critique.

[157] Andrew A. Schwartz, *Contracts and Covid-19*, 73 Stan. L. Rev. Online 48, 56-57 (2020). (in supporting the assertion that the term "pandemic" is virtually absent in the documentation of *Force Majeure* clauses, outlining the following result from an empirical survey: (i) a zero return was recorded from a search conducted on the platform Westlaw in April 2020 for cases on *Force Majeure* containing the term "pandemic" (ii) by comparison, a search for "epidemic" along with the term "Force Majeure" returned 77 results, and (iii) finally, to put the foregoing in full context, a search for the term "Force Majeure" alone returned over 2,000 results).

[158] Rodney D. Ryder, Drafting Corporate and Commercial Agreements: Legal Drafting Guidelines, Forms and Precedents (2005). *see* Schwartz, *supra* note 157.

[159] *See* Section 3.3. *infra.,* for an articulation of possible scenarios in the context of Covid-19.

[160] *See* Schwartz, *supra* note 157, at 57.

There is an outstanding problem, nonetheless. Even where "epidemic" is listed as a *Force Majeure* event, there arises the problem of indeterminacy regarding the exact time the event commenced. This has implications for determining the timelines for protocols that, as would be noted later, are entailed in aspects of the typical regimes applicable to *Force Majeure.* In the circumstances of Covid-19, the date of declaration of a pandemic by W.H.O., or epidemic by the concerned national public health authority, could be relevant. However, considering that some governments in the worst affected countries dithered, for varying reasons, in taking such indicative actions, the risk of indeterminacy persists. In this regard, determination will have to turn on the relevant facts of each situation, such as when factories actually shut down, or transportation systems went epileptic, or upstream contracts began to fail, etc.

For comparison, a similar indeterminacy exists regarding the war-related provisions in commercial contracts (for example, *Force Majeure* clauses and "war cancellation clauses"[161] in charterparties). Successfully invoking these clauses depends on the answer to the two questions: does a state of war exist and if so, when did it begin? This should ordinarily be possible with a proper definition of a state of war. However, conclusive proof of the existence of a state of war, or lack thereof, cannot be gathered from key markers such as, in the international setting, formal declaration (whether unilateral or unanimous),[162] or other official communications.[163] Meanwhile, repairing to the reality on the ground is never easy, considering that hostilities with disruptive portents for commercial activities include initial manoeuvring and "belligerent noises" that may or may not end in armed conflicts.[164] Well-drafted *Force Majeure* clauses have apprehended this problem of indeterminacy regarding war situations (thus, the famous "war and hostilities, whether war be declared or not" or similarly worded clauses). For most practical purposes, risks of disruption in an epidemic tend to be propagated in a similarly not-easily determinable manner as in a state of war.[165]

---

[161] A war cancellation clause allows a party to terminate the charterparty where the flag state of the subject ship enters into a state of war. The rationale for this clause is to limit exposure to typical liabilities to which a ship flying the flags of a state at war is subjected, including seizure as "prize" by combatants of the opposing state and liability of nationals of the said opposing state and their transaction to alien enemy laws, where applicable.

[162] *See* D.J. Harris, Cases and Materials on International Law 887 (6th ed. 2004). (citing provisions of international instruments such as Article 2(4) of United Nations Charter as well as the 1949 Geneva Red Cross Convention and its 1977 Protocols to support the view that international law has moved from concern with the formality of war declaration to a functional approach that recognizes all uses of force or armed conflicts).

[163] *See* Kawasaki Kisen Kabushiki Kaisha of Kobe v. Bantham Steamship Company Ltd. (No. 2) 2 K.B. 544 (1939).

[164] *See* BRIAN DAVENPORT, *War Clauses in Time Charterparties, in* Force Majeure and Frustration of Contract 157-58 (Ewan McKendrick & Andrew Rogers eds., 2013). *See also* Harris, *supra* note 161 ("[I]t is now exceptional for parties to hostilities to regard themselves as legally at war").

[165] *See infra* Section 2.1.3. for discussion of a simulated account of risk propagation in a pandemic.

Perhaps, the experience of Covid-19 would help move the drafting of clauses enumerating "epidemics" as a *Force Majeure* event towards similar nuance in the future.

China has adopted a regulatory approach to bringing a level of certainty to the issue of determining the incidence of an epidemic. The quasi-official China Council for the Promotion of International Trade (C.C.P.I.T.) now issues a force majeure factual certificate (*Force majeure* certificate) to parties who desire a proof of event that constitutes *Force majeure* under their contract.[166] The *Force majeure* certificate merely provides a confirmation of the relevant event – including on connected details such as the nature, extent, date and length of the event, as well as any governmental order in regard thereof – and is not conclusive on a finding whether it then constitutes *Force Majeure* .[167] A tribunal seised of the matter will have to determine if, having regard to the stated facts, a case for *Force Majeure* has been established as envisaged in the agreement of the parties or otherwise in accordance with the doctrinal basis for *force majeure* or change of circumstance under relevant Chinese legislations.[168] Thus, while the role of the *Force majeure* certificate may be limited, its suitability for addressing the risk in concern before Chinese tribunals is not in doubt.

What remains to be determined is the willingness of other national courts or international tribunals to give the same evidential weight that Chinese tribunals would, to the *Force majeure* certificate. In other words, having regard to the international character of the current pandemic risks, will the issuance of the *Force majeure* certificate be widely recognised in complex international transactions as a backstop or bookend to the problem of indeterminacy in *Force Majeure* clauses? That Chinese law is the governing law of the contract will be of little moment where a Chinese tribunal is not the forum.

---

[166] *See* Alan Schwartz, *Contract Theory and Theories of Contract Regulation, in* THE ECONOMICS OF CONTRACTS: THEORIES AND APPLICATION 102 (Eric Brousseau & Jean-Michel Glachant eds., 2004). Supra note 38, 116, at 116 [stating, as one of the four substantive aspects of proper state role in contract regulation, the supply to the parties of "governance modes for the conduct of transactions or the resolution of disputes," the other three being (i) contract enforcement (ii) policing of the parties and (ii)supply of common vocabularies]. Although Alan Schwartz identified the legislature as the appropriate state organ for performing this particular governance role, we consider this the fitting category for contract regulation represented by the *Force majeure* certificate, having regard to the quasi-official, rule-making status of C.C.P.I.T. as well as the recognition of the certificate by Chinese tribunals faced with fact finding and application of rules on "force majeure" cases.

[167] *See* Sophia Tang, *Coronavirus, force majeure certificate and private international law*, CONFLICT OF LAWS (March 1, 2020), https://conflictoflaws.net/2020/coronavirus-force-majeure-certificate-and-private-international-law/ .

[168] There are provisions analogous to *force majeure* and change of circumstance doctrines under Chinese law. *See*, respectively, Interpretation of the Supreme People's Court on Issues Concerning the Application of the Contract Law of the People's Republic of China (II) (promulgated by Judicial Committee of the Supreme People's Court, Feb. 9, 2009, effective May 13, 2009), art. 26, CLI.3.116926(EN)(lawinfochina.com) and Contract Law of the People's Republic of China (promulgated by Nat'l People's Cong., Mar. 15, 1999, effective Oct. 1, 1999), art. 117, CLI.1.21651(EN) (lawinfochina.com) [the latter provision on *force majeure* will now be replaced by the newly promulgated Civil Code of the People's Republic of China (promulgated by Nat'l People's Cong., May 28, 2020, effective Jan. 1, 2021), arts. 180 & 194, CLI.1.342411(EN) (lawinfochina.com)].

This is because, it is a well-established rule of private international law that matters of procedure – including, in this regard, evidence – are determined in accordance with the law of the forum (*lex fori*).[169]Therefore, a foreign court before which the *Force majeure* certificate is adduced as evidence may set only little store by Chinese practice regarding the document. Potentially, there is also a political dimension to the prospect of this document in attaining global acceptability. Therefore, much may depend on the general perception of the *Force majeure* certificate as fairly and evenly issued to all parties that are involved and not as a mere convenient shield for Chinese parties.

Covid-19 has been described as a "black swan" "because its worldwide consequences were extremely uncommon, consequential, and hard to predict".[170] However, recent trends indicate an increase in the frequency of pandemics generally,[171] thus portending the increasing significance of the problem of indeterminacy as we go forward. In this regard, the practice of issuing an instrument in the nature of the *Force majeure* certificate could be a welcome practice in international commercial transactions. Coordinating institutions of the *lex mercatoria* have a role to play in standardising it through development of principles for its issuance and its acceptability.

2.2.1.B. HARDSHIP CLAUSES

Hardship clauses, for their part, address typical developments in change of circumstance and not those that necessarily make performance impossible. Hardship arises "where the occurrence of events fundamentally alters the equilibrium of the contract either because the cost of a party's performance has increased or because the value of the performance a party receives has diminished".[172] Although the foregoing definition roughly approximates, in economic terms, the analysis that has been applied to some of the doctrinal grounds for Excuse,[173]this does not clarify the variety of circumstances that may foist hardship on performance. Suffice to say that hardship

[169] *See generally* Trevor C. Hartley, International Commercial Litigation: Text, Cases and Materials on Private International Law 505 (2009). Richard F. Oppong, Private International Law in Commonwealth Africa 10 (2013). Geert van Calster, European Private International Law 3, 270 (2d ed. 2016). *But cf.*Guangjian Tu, Private International Law in China 44 (2016). (suggesting that this principle itself is not an explicit one in Chinese conflict of law rules, although that is not relevant to the point in concern here).

[170] Luis A. Perez-Batres & Len J. Treviño, *Global Supply Chains in Response to COVID-19: Adopting a Real Options Mindset,* 20 AIB Insights 1 (2013).

[171] *See* Rayan Morard, *Global Health Security Overview – 2019*, World Economic Forum https://weforum.ent.box.com/v/HealthSecurity-2017(last visited Sept. 7, 2020) (last visited Oct. 4, 2021). (stating that the "number and diversity of epidemic events has been increasing over the past 30 years [a trend that] is expected to intensify").

[172] Art. 6.2.2 Unidroit Principles 2016 (this broad definition is subject to typical conditions such as, that the event (*a*) occurs post-contract (*b*) is reasonable unforeseeability (*c*) is uncontrollable and (*d*) its risk has not been otherwise assumed).

[173] *See* Schwartz, *supra* note 87.

clauses being typical in long-term contracts wherein performance is a series of exchanges or deliveries over a sustained period of time,[174] the relevant events are usually those changes that could be expected to interpose within such long timeframes or repetitive cycles.[175]

A typical hypothesis has two parts viz: (i) *definition* of the nature of the operative change in circumstance, and (ii) *consequences* that the change must have on the contractual relationship. In some cases, these two parts are preceded by a *preamble* articulating the understanding that underlie the provision. The *definition*, in addition to the typical elements of supervening events such as unforeseeability, uncontrollability or unavoidability, may encapsulate the nature of the circumstances in specific or general terms. General circumstances could be expressed regarding whether they are of an economic or political nature while specific circumstances are a rough analogue for enumeration in a *Force Majeure* clause. They detail the operative circumstances in practice such as whether it is in respect of price, pricing and exchange rate, change in law or regulation or other disruption to market access, as well as market developments such as technology obsolescence or diminution in downstream market or off-take. The level of details in the articulation of specific circumstances varies by practice.[176] There is also the possibility of expressly excluding specific circumstances from the hardship clause, especially those already covered by definitive review or amendment clauses.[177]

The operative *consequence* specifies the effect – to wit, the nature or degree of hardship – of the circumstances on the contract or performance, based on criteria that could be objective or subjective. The consequence may also be articulated broadly or with diverse levels of specificity.

[174] *See* Comment 5 to Art. 6.2.2 Unidroit Principles 2016 (without excluding other circumstances, emphasizing that "hardship will normally be of relevance to long-term contracts"); *see also* Fontaine & De Ly, *supra* note 41, at 453 & 455 (emphasizing the particular relevance of hardship clauses to "long-term contracts" and "middle or long-term undertakings").

[175] Broad categories would include, say, change to fiscal factors such as price, pricing and exchange rate, changes of a legal or political nature including change in law or prohibition that disrupt market access, as well as market developments such as technology obsolescence. *See* Fontaine & De Ly, *supra* note 41.

[176] For an analysis of diverse techniques and approaches to developing hypotheses for *Force Majeure* clauses, and a critique, see *id.* at 402–18.

[177] Such exclusion may not be conclusive in a determination whether doctrinal Excuse applies, since such clauses are themselves subject to doctrinal grounds, such as frustration. *See* Treitel, *supra* note 51, at 899–900.

2.2.2. *FORCE MAJEURE* AND HARDSHIP CLAUSES: THE REGIME

Under simple *Force Majeure* clauses, the legal consequences that typically follow an effective declaration of *Force Majeure* event are, in the case of a temporary event, *suspension* of performance, and *termination* of the contract where the event or its effect does not cease or sufficiently abate within the period of suspension. Of course, there may be termination without need for suspension where the *Force Majeure* event concerned is of such a nature as to make such cessation or abatement unlikely to occur anytime in the reasonable future. There are also protocols such as issuance of notices in respect of the declaration of the *Force Majeure* event or of the suspension or the termination, as the case may be.

- Epidemic occurrence with disruption localised in the upstream of the supply chain: Disruption is proportional to the duration of the disruption.
- Simultaneous occurrences with disruption propagated by ripple effect and pandemic effect: Disruption depends on the timing and scale of disruption propagation (the ripple effect) as well as the sequence of facility closing and reopening at different nodes rather than on the duration of disruption upstream.
- Simultaneous occurrences with synchronous disruptive effects on both supply and demand end of the supply chain: The more synchronised the recovery timing of facilities, the less likely there will be disruption. In terms of duration of disruption, this is more material downstream so that a positive outcome of this scenario is more dependent on the quickness in restoration of operations and demand in that node of the supply chain.

2.2.3. DOES AVAILABILITY OF A CONTRACTUAL GROUND OBVIATE APPLICATION OF DOCTRINAL GROUNDS FOR EXCUSE?

To round off this part of the article, we should summarise the relationship between the doctrinal and contractual grounds for Excuse. Does the inclusion of a *Force Majeure* clause in a contract obviate the application of the general law, say, the doctrine of frustration? Of course, this question is irrelevant where the supervening event or changed circumstance in concern is specifically enumerated in the *Force Majeure* clause or hardship clause. However, circumstances arise in which such actual event or circumstance does not appear to have been covered by contractual ground for Excuse. Does the bare existence of such a contractual ground evince the intention of the parties

to limit the grounds to only those specifically stated, so that no other grounds may be admitted even under the general law?

An analysis of the array of cases suggests the following principles:

- Parties could by the express agreement exclude the application of the doctrinal grounds to supervening events.[178] This is because, in principle, the parties could by agreement allocate risks arising from such events;[179]
- However, where on true construction, the court finds that the supervening event at issue before the court is out of scope of the express exclusion in the contract (such as when "risk materialises in some overwhelming form"[180]), the courts would excuse performance on doctrinal grounds, where available[181] or under any alternative provision of the contract wherein termination may be effected on "neutral" grounds;[182]
- Furthermore, regardless of how the parties spell it out, no agreement of the parties may be read to exclude, say, frustration of a contract regarding an obligation that would be illegal at the time of performance, unless the agreement itself is worded so that the objective is purely the allocation of economic risk rather than mandating performance at the risk of illegality.[183]As previously stated, this rule has a public policy dimension to it.[184]

Finally, on this point, it should be reiterated that the mere fact of the alternative application of a doctrinal ground for Excuse, in the absence or upon the failure of contractual grounds, does not mean that these two grounds have the same consequence. It should be recalled, for example, that the invariable consequence of the doctrine of frustration is generally "neutral" – discharge of the obligations and, except in cases of severability, termination of the contract as well as adjustment of losses in accordance with the law.[185] Contractual grounds, on the other hand, offer the parties more latitude for control of the consequence. It has been suggested, for example, that severability clauses could be influential on judicial determination of the consequences of termination

[178] Rafal Zakrzewski, *Material Adverse Change and Material Adverse Effect Provisions: Construction and Application,* 5 L. & Fin. Mkt. Rev. 344, 349 (2011).
[179] *See* Kuwait Supply Co v. Oyster Marine Management (The Safeer) 1 Lloyd's Rep 637 (1994).
[180] Per Rix J., *id.* at 643.
[181] *See* Metropolitan Water Board v. Dick, Kerr & Co AC 119 (1918), HL; Jackson v. Union Marine Insurance Co. L.R. 10 C.P. 125 (1874).
[182] *See* Bank Line Ltd. v Arthur Capel & Co A.C. 435 (1919).
[183] *See* Ertel Bieber & Co v. Rio Tinto Co Ltd A.C. 260 (1918); *Metropolitan Water Board v. Dick, Kerr & Co Ltd* , *supra* note 186;
[184] *See supra* note 81.
[185] *See supra* Section 2.1.2.

of an unenforceable contract.[186] Controlling, at a minimum, the regime of effective consequences, even if the bare protocols if not the substantive loss adjustment, is reflective of party autonomy and brings the outcome as close as possible to what commercial bargainers might desire under the circumstance.

3. PRACTICAL APPLICATION IN THE CIRCUMSTANCES OF PANDEMIC-INDUCED SCD

3.1. BASES OF OUR FRAMEWORK OF ANALYSIS

Our framework draws from understanding distilled from three streams of insight: (i) our above analysis of the doctrinal and contractual grounds for Excuse (ii) the nature of O.L.L.S. contracts that govern supply chains, and (iii) the unique patterns of risk propagation in pandemic outbreaks. The first two streams enable us to apply the framework to the analysis of situations of a global pandemic, having regard to the insight gained from the third stream. We therefore proceed to briefly discuss the understanding from these streams of insight below.

3.1.1. THE DOCTRINE-CONTRACT COMPLEX

There are two key insights from our analysis of the doctrinal and contractual regimes that are important for developing a framework for examining impact on global supply chain contracts. Firstly, the two regimes have a mutually reinforcing relationship in the development of this area of law. Whilst the lawmakers and the courts have been concerned with delimiting the grounds for Excuse, commercial actors continually seek, through party autonomy, to give similar effect to developments emergent from continually evolving commercial reality.[187] In the process, model clauses have evolved in commercial contracts that, in many cases, capture the doctrinal grounds, while, in others, supplement them or alter their effects or, where possible, even exclude them outright. In consonance with the rule-producing roles of commercial actors,[188] legislators have, in turn, taken inspiration from commercial reality, to varying degrees, in legal reforms across the jurisdictions. This system-level insight shows a

[186] *See* Fontaine & De Ly, *supra* note 41, at 175–76.
[187] *See supra* Section 1.1. (for economic explanation of these behaviors).
[188] *See* IGLP, *supra* note 68, at 77.

two-directional, mutually-reinforcing pattern and is therefore different from the "contracting in the shadow of the law" thesis propounded by Mnookin and Korhausert[189] and adopted by Schwartz in the field of contract law.[190]

This leads us to the other insight, which is at firm or transaction level. It is possible, and is often the case, that the two regimes apply to the same contractual relationship, with the doctrinal grounds providing the default rules whilst rules from the contractual regime could be introduced to affect the default rules in the manner described above regarding model contracts. The parties could, of course, make their own peculiar terms or otherwise adopt, or incorporate by reference, some existing model clause.[191]

These insights make it possible to develop a doctrine-contract complex as an analytical framework for illuminating the potentially systemic risks that a disruptive event, with such dynamic impact (both spatial and temporal) as a pandemic, could pose to a global supply chain. This could be achieved by combining these insights with an understanding of the nature of contacts governing the supply chain, or what we have called O.L.L.S. contracts.

3.1.2. THE NATURE OF "OPERATIONALLY-LINKED (BUT) LEGALLY SEPARATE" [OLLS]

In our framework, the unit of analysis are the G.V.C.s, which have operational logic that is underlain by O.L.L.S. contracts. O.L.L.S. contracts, at base, underlie a set (chain) of dyadic relationships in which the success or failure of one contract (*determinant contract*) has implication for the ability or inability of a party in that contract to perform its obligation to another party in a separate contract (dependent contract). Now, the area of tension[192] is between the economic reality of G.V.C.s and the legal doctrine of privity of contract. Generally, by that doctrine, a party cannot acquire rights or be saddled with obligations under a contract to which it is not a party.[193]

[189] *See* Robert H. Mnookin & Lewis Korhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L. J. 950, 968 (1979).
[190] Schwartz, *supra* note 165 , at 116–25.
[191] This constant presence of the doctrinal rules that have to be dealt with one way or another is the proper Mnookin and Korhausert "shadow". Schwartz, *supra* note 87, at 8 (ed. 2009), treats "standard" contracts as midway between two other approaches: the first being to allow the default rules under the governing law to determine the terms, and the other being to design bespoke terms. All three approaches have economic rationale.
[192] *See* Eller, *supra* note 24.
[193] TREITEL, *supra* note 51, at 606–07.

G.V.C.s are conceived as a single, if complex, set of operations aimed at producing and/or delivering a good or service to the end user, using spatially and/or organisationally dispersed resources. Thus the failure of one of the nodes could disrupt the entire chain and, with it, the ability to deliver the good or service. Besides, the good or service may have an "owner" in the eyes of the end user or other external participants in the market. In fact, it is usually the case that an "owner" has configured the entire chain either from the ground up or, more usually, by consummating the final link in the chain that consolidates existing operations for the purpose of delivering a specific good or service.[194] Such an "owner" will usually be the lead firm in a supply chain.[195] Therefore, these lead firms have an incentive to ensure the performance of all the relevant operations. However, where they have no direct contract with some of the participants in the chains, the classical remedies in breach of contract, which may come in handy for relief at individual dyadic levels, will not be suitable to remedy the overall economic failure.

Salminen has considered this type of limitation in the context of chain-wide compliance programs. In his study of models of G.V.C. governance, he has distilled some "contract boundary-spanning" governance mechanisms by which lead firms may reach beyond the limitations of privity to control other participants in their value chains over which they have no direct contractual relationship.[196]

[194] In more complex systems such as an I.S.N., such links or nodes would be consolidating smaller chains or networks into a single system for the purpose of delivering the good or service. *See supra* note 9. It should be noted that these are different from the so-called "spiderless networks" that are "formally independent but functionally interdependent firms" employing logic of spatial contiguity or strategic alliances to externalize and share infrastructure of resources and capabilities. Spiderless networks tend to be proximate rather than dispersed (although in the tech industry, less contiguous firms may form strategic alliances) and, unlike supply chains, are typically not directed at bringing a single product or service to the customer. *See* Ariel Porat & Robert E. Scott, *Can Restitution Save Fragile Spiderless Networks?* 8 Harv. Bus. L. Rev. 1 (2018). (for differences between Spiderless networks and "collaborative supply chains").

[195] It may also be a parent company in a corporate group (the head office of an M.N.C., for example). Because corporate groups are governed through ownership and managerial control, the economic-legal tension is less but admittedly not completely eliminated. *See* Kurt A. Strasser and Philip I. Blumberg, *Legal Models and Business Realities of Corporate Groups: Mismatch and Change*, 5 CLPE Research Paper Series 3, (2009). In the cross-border context, M.N.C.s are subject to additional tensions between the "separate entity" and "enterprise" approaches to corporate groups, that may affect, for good or ill, the ability of a parent company to effect extraterritorial coordination. *See* Phillip I. Blumberg, The Multinational Challenge to Corporate Law: The Search for a New Corporate Personality 168-01 (1993). 168 – 201. There are also operational risks arising from spatially dispersed operations or, as has increasingly been the case, the increasing delivery of their outputs through contract-based strategies embracing third-party suppliers (*see supra* note 11 and accompanying text).

[196] *See* Salminen, *supra* note 62. *See also infra* Section 3.5.1. where we make suggestions on how Salminen's model may benefit discussions on control of supply chains for risks arising out of Excuses.

3.1.3. PECULIAR PATTERNS OF RISK PROPAGATION IN A PANDEMIC

To utilise our framework in the context of the current Covid-19 pandemic, it is important to underscore the dynamism of the impacts that will be created by the crisis *vis-à-vis* global supply chain activities. For insight, we rely on an early study of the Covid-19 pandemic by Dmitry Ivanov, who aptly describes the nature of pandemic-related supply chain risks in the following manner:

> [U]nlike other disruption risks, the epidemic outbreaks start small but scale fast and disperse over many geographic regions creating a lot of unknowns which makes it difficult to fully determine the impact of the epidemic outbreak on the [supply chain] and the right measures to react. Overall, the epidemic outbreaks create a lot of uncertainty and companies need a guided framework in developing their pandemic plans for [the supply chain].[197]

Having regard to the kind of difficulty described above, Ivanov has simulated possible disruptive outcomes of the pandemic for the supply chain, based on scenarios that vary the interplay of spatial and temporal occurrences of the pandemic events. The three scenarios considered are as follows:[198]

- Epidemic occurrence with disruption localised in the upstream of the supply chain: Disruption is proportional to the duration of the disruption.

- Simultaneous occurrences with disruption propagated by ripple effect and pandemic effect: Disruption depends on the timing and scale of disruption propagation (the ripple effect) as well as the sequence of facility closing and reopening at different nodes rather than on the duration of disruption upstream.

- Simultaneous occurrences with synchronous disruptive effects on both supply and demand end of the supply chain: The more synchronised the recovery timing of facilities, the less likely there will be disruption. In terms of duration of disruption, this is more material downstream so that a positive outcome of this scenario is more dependent on the quickness in restoration of operations and demand in that node of the supply chain.

[197] Dmitry Ivanov, *Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case*, Transportation Research Part E: 136 Logistics & Transp. Rev. (2020), (manuscript at 9), *available at* https://europepmc.org/article/pmc/pmc7147532 .

[198] *Id.* at 6–9 (discussing the result of the study).

3.2. DEVELOPING THE FRAMEWORK

The possible supervening effects that a globally pervasive event might have on performance obligations in O.L.L.S. contracts range from the stricter effects of illegality and impossibility to the relaxed effect of commercial hardships.[199] We illustrate that range in Figure 1 below:

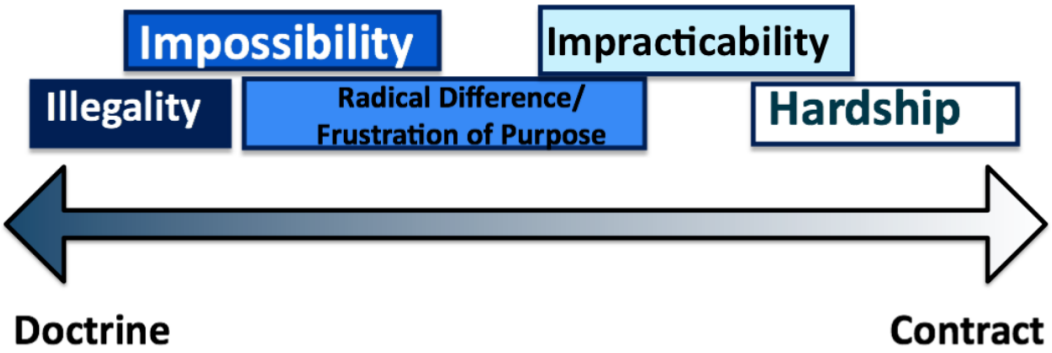

Figure 1: The Doctrine-Contract Complex and the range of supervening effects

Utilising the above framework, we understand that aspects of the same complex event, for example Covid-19, could have, on the same contractual obligation but at different times, the effects of the forms named in the boxes. It could also have a different effect drawn from that range on different contracts in an O.L.L.S. complex. The understanding is that the more leftwards an effect is in the continuum, the better is the chance that it would be covered by one of the traditional doctrinal grounds, whilst the more rightwards effects are likely to be covered by contractual regimes. Also, the more rightwards the effects are, the more sophisticated the clauses would have to have been to provide a ground for Excuse. The central area is the zone of uncertainty regarding the doctrinal grounds. Outcomes here requires deft understanding of the approach of the governing law and relevant courts in order to determine the reasonable success of the doctrinal grounds or to decide if reliance is better placed on contractual clauses, where available. In this regard, the civil law jurisdictions with dual and open approaches to Excuse offer more doctrinal certainty than the common law jurisdictions. Within the common law tradition, whilst American courts are more likely to make Excuse available under the doctrine of *commercial impracticability* than, say the English courts under frustration, we also have insight that the latter is likely to be more available in a consumer contract than contracts entered into by presumably sophisticated parties such as supply chain

[199] It is understood that supervening illegality is often considered a type of impossibility, however, we have decided to separate it in this framework, having regard to its public policy dimension (*see supra* note 133).

contracts are likely to be.[200] Whatever may be the case, well-drafted international commercial contracts should cover the entire field with reasonable certainty and are also more likely to give the parties wider latitude for bilateral coordination in determining the outcomes. Practical application of this framework to the Covid-19 scenario is discussed below.

3.3. DIMENSIONING THE SCD IMPACTS OF A PANDEMIC: FOUR SCENARIOS

In light of the insights previously discussed, and as we will show presently, the impact of Covid-19 will travel in waves that would result in diverse forms of supervening effects on businesses operations in different regions at different times. Thus, even in the same business, the scaling effect could result in Excuse grounds being invoked at increasing levels of disruptiveness as the supervening effects become more and more crippling. Some of the Excuse grounds will be available in doctrine and others in contract.

There are other points to make before formulating the scenarios. Firstly, for the sake of simplicity, we have excluded significant factors such as the impact of system safeguard strategies like resilience measures, as well as other factors such as sector- or transaction-specific lead-time for order fulfilment that would normally be taken into account in specific cases. The other point is that our scenario assumes a supply chain contract relationship that falls in any of the median classes in the five typologies of G.V.C. coordination identified by Gereffi, et al.[201] This would be anything between modular and captive typologies. This is because these models have a dynamic middle with supply chain participants that are freer in their agency than, say subsidiaries of corporate groups or M.N.C.s in the hierarchical model, but are nonetheless not easily substitutable as in the market-based model.

There are four broad scenarios in which performance of obligations under current contracts is open to disruption. Three of them could be referred to as primary scenarios, while the fourth is some sort of secondary scenario. These are:

- *Scenario A:* Shutdown of business operations could be due to direct impact of the pandemic. This will be the case for a firm in a location that has experienced the most virulent outbreak of Covid-19, as would for a firm that, even though based in a location with less widespread cases, has experienced even one case of the disease

[200] *See supra* note 94 and accompanying text.
[201] *See infra* Section 3.5.2.

or has a direct contact recorded amongst its people (which often leads to shutdown of facilities).

- *Scenario B:* Shutdown could be due to governmental action aimed at containment of the pandemic, including proclamations and deployment of military or paramilitary units to enforce such orders. It should be noted, however, that a proclamation does not always directly order the shutdown of business activities. Sometimes, it merely entails official declaration of an epidemic by public health authorities and issuance of advisory guidelines that allow firms to determine how normal activities are to be adjusted, based on the nature of their operations.[202] Sometimes, the nature of the business dictates how seriously the advisory is taken. For example, consideration of potential tortious liability, reputation risk and corporate responsibility policies may provide motivation for relatively early shutdown.

- *Scenario C:* S.C.D. could adversely impact production or sales operations. Such impacts could include inability to source raw materials due to shutdown by an upstream supplier or disruption to global logistics or local transport system, or a similar disruption to downstream activities of distributors and customers. Sometimes, these impacts may manifest as commercial hardships occasioned by worsening macroeconomic conditions such as price inflation, currency fluctuation or shortage of supply.

- *Scenario D:* It goes without saying, in the light of our understanding of O.L.L.S. contracts, that a combination of the above scenarios could have a stacked effect. A "stacked effect" occurs where failure to perform by a counterparty under the *determinant contract* adversely affects the ability of the focal firm to fulfil its obligations to a different counterparty in the *dependent contract*, and on and on. This scenario of "stacked effect" is likely to be rife in the circumstances of Covid-19 pandemic and could be exacerbated where there is a mismatch between the operative supervening effect in the Excuse regime applicable to the determinant contract, on the one hand, and that applicable to the dependent contracts, on the other. Two dimensions of such mismatches are discussed below.

[202] E.g. the "state of emergency" declared by Japanese government in April 2020 under the New Influenza Special Measures Act stipulates measures that are not mandatory and contains no penalties for violations, although a mandatory law may be made under Article 41 of the Japanese constitution. *See* Lawrence Repata, *The coronavirus and Japan's constitution*, The Japan Times (Apr. 14, 2020), https://www.japantimes.co.jp/opinion/2020/04/14/commentary/japan-commentary/coronavirus-japans-constitution/ .

3.4. DIMENSIONING THE SCD IMPACTS OF A PANDEMIC: TWO MISMATCHES

There are two possible dimensions to mismatches that may arise from scenarios with stacked effects. The first – *mismatch of standards* – occurs where failure to perform the determinant contract is excusable under one of the more relaxed supervening effects whilst such failure regarding the dependent contract is only excusable under one of the stricter effects. The other – *mismatch of time* – is due to time lag between the effects of a widespread disruptive event on the performance of both contracts, thus creating disparity in degrees as a matter of fact, even where there is no mismatch of standards in regimes of Excuse under the two contracts.

3.4.1. MISMATCH OF STANDARDS

Mismatch of standards is the simpler of the two mismatches and may be illustrated with the following scenario:

- The determinant contract is one for the supply of raw material input (Raw Material Supply Contract, or simply Raw Material Contract) which has been entered into between an intermediate manufacture supplier (Intermediate Supplier) and the raw material producer/distributor (Raw Material Supplier).
- The dependent contract is between the Intermediate Supplier and an equipment manufacturer (Original Equipment Manufacturer) for procurement of the intermediate manufacture, which is an input in the Original Equipment Manufacturer's finished product (Intermediate Input Procurement Contract, Intermediate Input Contract).
- The Raw Material Contract, in addition to the traditional *Force Majeure* clause, contains a hardship clause that excuses failure to deliver, as well as allows delivery to be postponed, renegotiated and/or ultimately terminated without damages, on the ground of some commercial difficulty such as currency fluctuation or labour shortage, or shortage of raw materials.
- On the other hand, the Intermediate Input Contract contains only the *Force Majeure* clause that excuses obligations on the stricter impossibility ground, or – to vary the scenario while achieving a similar effect – does not expressly provide for supervening events, so that performance may only be excused on the applicable doctrinal grounds. The governing law, by choice or conflict of law rules, is English.

- The Raw Material Supplier calls for suspension and renegotiation of supply obligations under the Raw Material Contract due to currency fluctuation in its local market. While the renegotiation is being worked out, valuable time passes. Worse still, agreement cannot be reached eventually, so that the contract is terminated without fault.

- There occurs a scenario with stacked effect, as there foregoing developments lead to the failure of the Intermediate Supplier to meet its obligation to deliver intermediate manufacture to the Original Equipment Manufacturer under the Intermediate Input Contract. Yet, failure of procurement is not one of the grounds on which the Intermediate Supplier's own obligation to the Original Equipment Manufacturer can be excused under that contract. The traditional impossibility ground in the *Force Majeure* clause, or reliance on the doctrine of frustration, is unlikely to excuse the Intermediate Supplier's failure as illustrated in *Figure 2*.

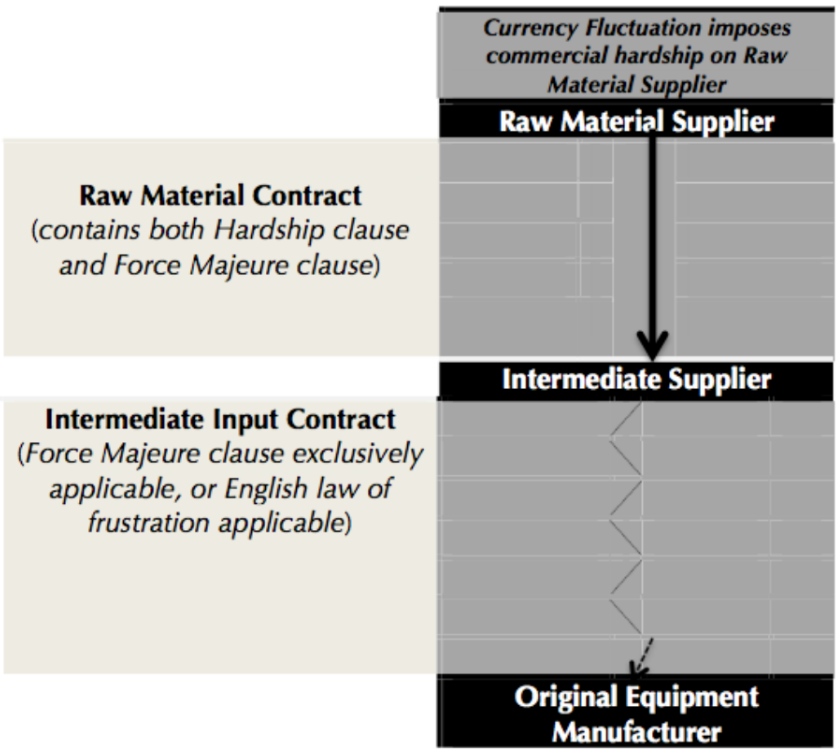

Figure 2: Simple Mismatch of Standard

Straight bold lines: Failure to perform excused
Zigzag broken lines: Failure to peform not excused

3.4.2. MISMATCH OF TIME

Mismatch of time is more complicated and entails an additional element of time. In this case, mismatch of standards may occur, but is not necessary. The standards for the applicable Excuse regimes under both determinant and dependent contracts may align in principle. For example, the Excuse applicable to both contracts may be the stricter impossibility grounds.[203] In the scenario of a gradually spreading widespread event, the time lag between the full propagation of the disruptive effects on both contracts, thus creating disparity in the fulfilment of the standard required of the relevant Excuse. This disparity is more likely to occur in scenarios where the more heightened effect is propagated in the more upstream contracts of the chain – which, by that positioning, are more determinant – thus creating a legitimate Excuse with disruptive effect on the downstream, determinant contracts, even if the latter effect is not yet itself considered to be of such standard as to provide ground for Excuse. Let us illustrate this mismatch with the following scenario:

- The parties and the contracts remain the same as in the last scenario, with the minor adjustment that all contracts in the supply chain contain similar *Force Majeure* provisions excusing performance only on the stricter illegality and impossibility grounds.
- The relevant disruptive event is a global pandemic.
- A consistent factor is that the country of location of the Raw Material Supplier, being "ground zero" of the pandemic, means failure to deliver under the Raw Material Contract would always be treated as excusable under doctrine or contract.
- The key variable in this scenario is the timeline for the spread of the pandemic to the other relevant locations and the propagation of its S.D.C. risk on the other contracts.
- The pandemic is localised in the "ground zero" country for the first two months before spreading to neighbouring countries from which alternative raw materials could be sourced. The pandemic, again, is contained in that region (Raw Material Supplier country and contiguous sources of alternative supply) for another two months before spreading to the location of the Intermediate Supplier where it

[203] Admittedly, there could be a mismatch of time based on an initial mismatch of standards that may be corrected in time. This is possible where the Excuse regime applicable to the determinant contact, unlike that applicable to the dependent contract, is of the flexible kind, so that even if the effect of the disruptive event on both contracts is simultaneously commercial at the moment, Excuse may be made only under the determinant contract. In time, if the disruptive effect heightens generally (or specifically in the place of performance of the dependent contract), the mismatch would be corrected and Excuse would be possible.

takes another two months before spreading to the rest of the world, including the location of the Original Equipment Manufacturer.

- In the circumstances, the Raw Material Supplier shuts down operations in month one due to the direct impact of the pandemic on its operations or in response to government containment orders. The shutdown leads to a failure to perform its supply obligations under the Raw Material Contract. Because Raw Material Supplier is duly excused under the *Force Majeure* clause in the procurement contract, it appropriately declares *Force Majeure* .

- At this point, even though the operation of the Intermediate Supplier is now disrupted by the failure of its Raw Material Supplier, there is no direct impact of the pandemic on its own operations yet. Therefore, its obligations under the Intermediate Input Contract cannot yet be excused since disruption to its procurement is not a class of supervening event typically recognised in most traditional *Force Majeure* clauses. At best, within the first two months, its effect is merely commercial hardship requiring it to change its source of supply, which would admittedly be at an inflated price due to decimation of the sources of raw material.

- After two months, when the pandemic spreads to the other sources of supply in contiguous territories in the region and there is shutdown by alternative raw material producers or suppliers, the obligation of the Intermediate Supplier to deliver intermediate manufacture to the Original Equipment Manufacturer is still not excused under a traditional *Force Majeure* clause that usually requires direct impact making performance impossible.

- As illustrated in *Figure 3*, it is only after the fourth month that a direct impact of the pandemic on the operations of the Intermediate Supplier or the containment actions of its national government would clearly give rise to a situation of impossibility that would avail it of Excuse under the *Force Majeure* clause in the Intermediate Input Contract.

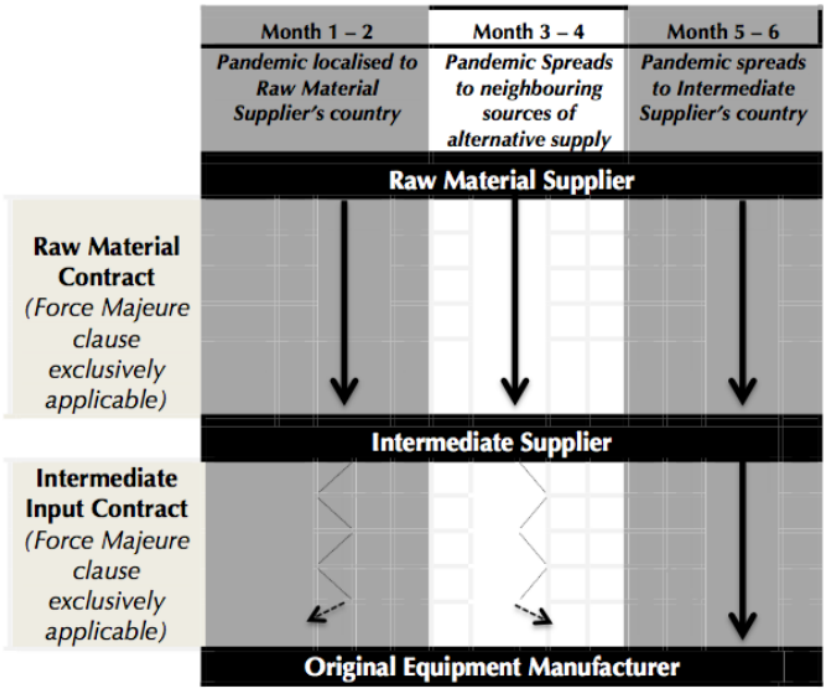

Figure 3: Scenario where contractual Force Majeure is applicable to both Determinant and Dependent contracts

Straight bold lines: Failure to perform excused
Zigzag broken lines: Failure to peform not excused

Now, to enrich the analysis, let us hypothesise this scenario a little differently , with the doctrinal grounds being the applicable regime:

- Such a prospect would turn on whether the Intermediate Input Contract had been drafted to clearly exclude the application of the doctrinal grounds. If that is the case, the doctrine would be excluded accordingly and the risk of failure to perform would lie with the Intermediate Supplier. If not, it is possible that the obligation of the Intermediate Supplier could be excused on one of the more relaxed doctrinal grounds from month one. This would be possible, for example, under the French and German "change of circumstance" laws, assuming any of these was the governing law.

- Furthermore, where the U.C.C. is applicable in one of the American states, it is possible that commercial impracticability would also avail Excuse from month one, depending on the relevant factual circumstances. This would be the case if it could be successfully argued that seeking an alternative source for the input from a

different country, with additional costs and perhaps at an inflated price, is not just a mere commercial inconvenience, but an alteration of the "essential nature of the performance" and has been occasioned by the "unforeseen contingency" of the pandemic.

- Also, a case of frustration of the delivery contract could be made after month two when operations in alternative sources are shut down so that raw material could not be procured anyway. Whether a case could be made for frustration from month one would turn on further nuance in the factual circumstances. It is arguable that, in the jurisdictions that have adopted the "multifactorial" approach to the doctrine of frustration, diverse elements of the factual circumstances could be combined to make a case for frustration of the purpose of the intermediate input contract. We have seen that, although frustration of purpose is theoretically meant to benefit the buyer that could no longer take delivery, it has sometimes been allowed to benefit the supplier that could no longer deliver.[204] An argument may however be made that, since this is a supply chain relationship with presumably sophisticated parties involved, the relevant factors to be considered in a multifactorial analysis will have to be so strong as to rule out the predilection of, say English courts, to deny parties of this more relaxed ground for Excuse in a non-consumer contract relationship.[205] However, it is our view that supply chain relationships in fact disclose unique features of their own that make them *sui generis*. This is having regard to the nature of the O.L.L.S.contracts undergirding them, which nature makes the remote failure of a determinant contract a significant factor to consider in a multifactorial analysis of the frustration of the dependent contract.[206] The implication of the diverse variants of the scenario is *Figure 4*.

[204] *See, e.g., Planet Kids'* case, *supra* note 141.
[205] *See supra* note 94 and accompanying text.
[206] *See infra* Section 3.5.2. for a prefatory consideration of factors arising from G.V.C. coordination models that may come up for consideration in such multifactorial analysis.

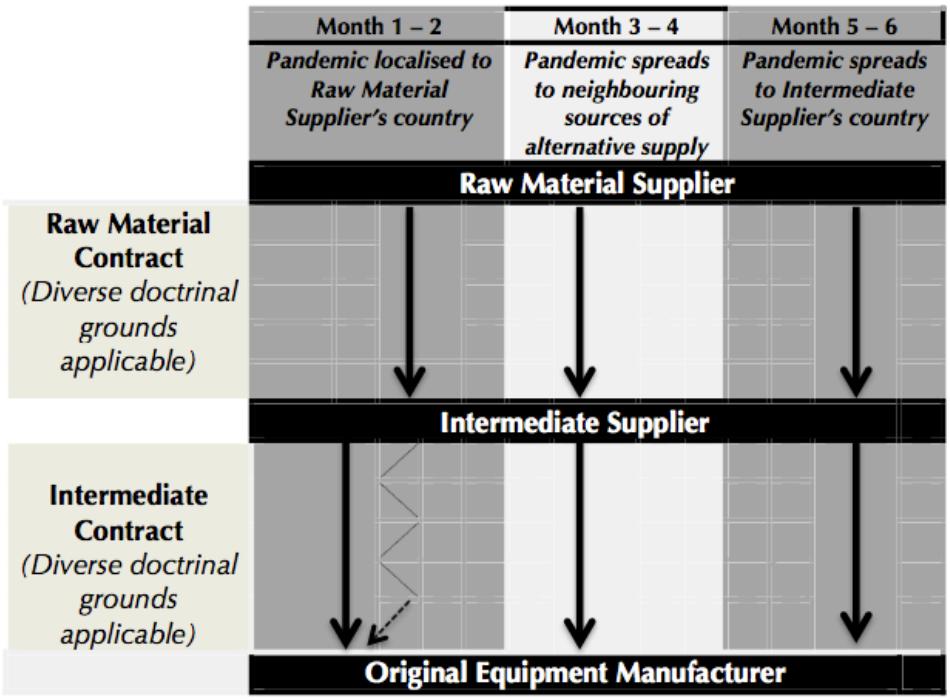

Figure 4: Scenario in which diverse doctrinal grounds are applicable

Straight bold lines: Failure to perform excused
Zigzag broken lines: Failure to peform not excused

Hypothesising even further, what about a scenario in which the Intermediate Input Contract contains a robust hardship clause?

- As illustrated in *Figure 5*, in such a scenario, it would have been possible for the Intermediate Supplier to be excused from month one, where the said clause contains some of the typical grounds such as price inflation, shortage of supply, etc.

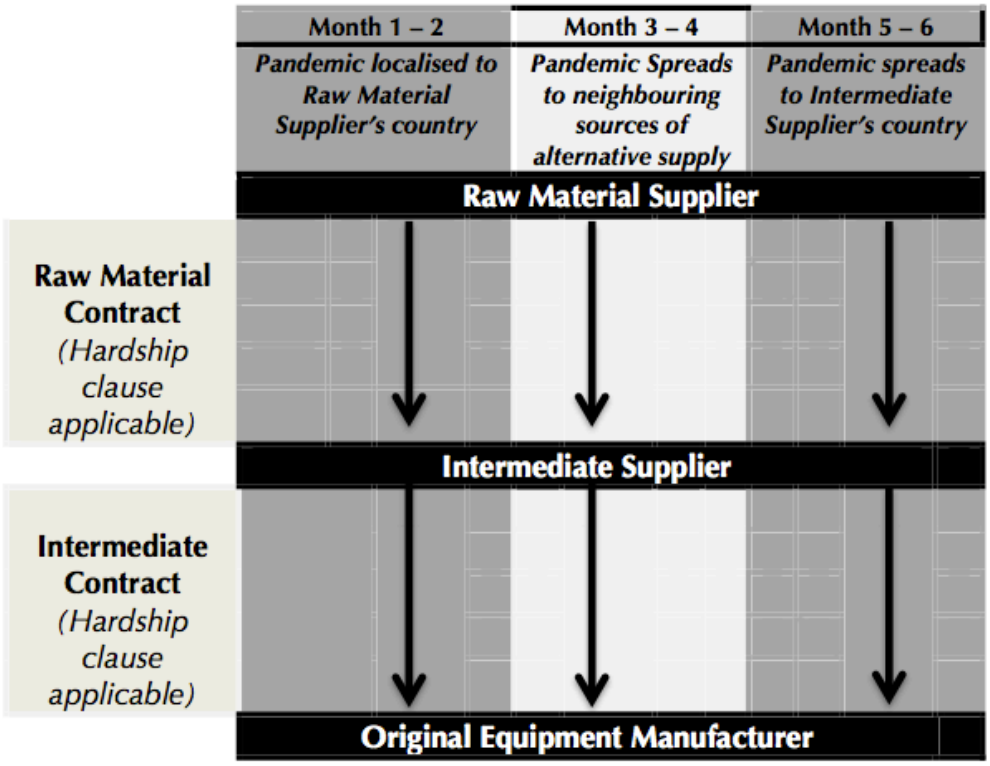

Figure 5: Scenario in which a Hardship clause is applicable across board

Straight bold lines: Failure to perform excused
Zigzag broken lines: Failure to peform not excused

The relative disadvantage of Excuse under the American impracticability doctrine or common law frustration should however be noted, since these, unlike the French and German "change of circumstance" doctrines or even contractual hardship clauses, do not provide scope for keeping the contract alive under adjusted terms. Thus, any opportunity they may appear to provide for softening the impact of a mismatch in some of their construal – say, as explained in the text introducing *Figure 4* above, under the provisions of the U.C.C. or arguably through the multifactorial approach – will not totally match the opportunity afforded by those other regimes in the overall legal consequence.

3.5. ESSAYING USE CASES FOR THE FRAMEWORK

Our framework should find use case in diverse circumstances in which the unit of analysis is a supply chain with operational logic underlain by O.L.L.S. contracts. It could be useful in a post-S.C.D. scenario where there is need to scan for existing mismatches of standards, with a view to guiding quick renegotiation, or to apprehend potential mismatches of time, with a view to taking pre-emptive steps ahead of the actual or full propagation of S.C.D. risks. It could also be useful as an *ex ante* tool for testing and addressing elements of resilience measures in the supply chain. In this case, it could feed into the design of the O.L.L.S. contract that would govern the supply chain or its redesign. Yet another use case would be its possible contribution to the matrix of factors that may be considered in judicial determination of cases of frustration, where an O.L.L.S. contract is in concern. While this article does not propose to dive deep into these last two potential use cases, let us explore their possibilities to some degree.

3.5.1. MANAGING EXCUSE MISMATCHES IN O.L.L.S. CONTRACTS: BORROWING FROM "CONTRACT BOUNDARY- SPANNING" GOVERNANCE MECHANISMS

An understanding of the vulnerability of supply chain relationships to S.C.D. arising out of Excuse mismatches in constituent O.L.L.S. contracts could illuminate the contribution of contract design to the resilience of the supply chain. Mitigating the risks attendant thereon requires coordination, which is constrained by tensions between economic logic and legal doctrine.[207] The two promising models distilled by Salminen in his case study on "contract boundary-spanning" governance mechanism, are (i) voluntary industry accord, based on a study of the Bangladesh Accord on Fire and Building Safety and (ii) open book accounting in German automotive industry.[208] As we will highlight shortly, the object of Salminen's enquiry belongs to the "externalities" class of G.V.C. risks and how they might be addressed through private governance mechanisms. For example, in the case of the Bangladeshi Accord, the concern of the lead firms is compliance with fire safety standards across the apparel/garment supply chain to stave off legal and reputational risks. It is not concerned with the implication of fire disasters for order placement and fulfilment (in other words, contractual performance). The latter is in the class of our own problem of focus.[209]

[207] *See supra* text accompanying note 199.
[208] Salminen, *supra* note 62, at 722–26.
[209] Note our classification of G.V.C. risks into two types, *supra* text accompanying note 21.

The question may be asked then: how adaptable are these approaches to removing, say, the risk of Excuse mismatches in the G.V.C.s? To answer that question, we consider the two above-stated governance models in Salminen's study and take a preliminary view that the more promising for our purpose is the "open-book accounting' method. That method refers to "practices where actors involved in the same production chain share with one another production-related cost information," with a requirement for such sharing to cascade down the chain.[210] We consider this model more suitable than the voluntary accord model for a number of reasons, including that: (i) it is designed for specific supply chains rather than for entire industries and thus fits the context of O.L.L.S. contracts (ii) it mirrors the bridging strategies already in use as a resilience measure, albeit on a grander scale that looks at information sharing beyond dyadic relationships, and (iii) although an independent instrument, its terms cascade down the chain through the individual bilateral contracts, thus removing the risk that the system might be breached through an inadvertent interposition of a non-party to an industry instrument.[211]

In our view, coordinating to remove risks of Excuse mismatch in the O.L.L.S. contracts is highly dependent on the coordination typology adopted for the supply chain. Our preliminary view is that such measures are likely to be more successful in those designs – per the five models of Gereffi et al – that give the lead firms a relatively strong control of the entire chain.[212] A future study might consider the relative suitability of the different models for achieving effective "contract boundary-spanning" control to remove risks of Excuse mismatches.

Finally, as previously noted, Salminen's study concerns mainly chain-wide control for externalities that have potential legal or reputational consequences for the supply chain operation or the lead firm. In this regard, there is ample scope for interaction (tension, really) between private governance, on the one hand, and public law, on the other. Our focus remains solidly within the terrain of private law, in this case the law of contract. A more relatable example of "contract boundary-spanning" in the context of contract law could be drawn from the asset management field, whereat contractual clauses often establish an extended fiduciary duty of certain professionals in respect of their advice even in the absence of direct contract with the asset owners or beneficiaries of the fund under management. The fiduciary duty of the trustee itself is usually a matter of public law. Furthermore, some jurisdictions statutorily extend such

[210] Salminen, *supra* note 62, at 725.
[211] This is a risk that Salminen, *supra* note 62, has noted regarding the voluntary accord model ("Problems may arise where not all value-chain members are party to the governance contract"). *Id.* at 738.
[212] *See supra* text accompanying notes 237 & 238 for an overview of the typologies.

fiduciary duties to certain categories of advisors to the trustee, such as asset managers and consultants.[213] However, in jurisdictions where the latter is not the case, fiduciary may be extended by the contract of appointment between the trustee and such an advisor.[214] This inevitably expands the contractual boundary of the asset owners. As an exception to the doctrine of privity, certain jurisdictions allow a third party for whom the contractual duty provides a benefit to enforce it, regardless of the lack of privity.[215]

3.5.2. MULTIFACTORIAL ANALYSIS IN CASES OF FRUSTRATION: PECULIARITIES OF O.L.L.S. CONTRACTS AS POSSIBLE FACTOR

Could the peculiar operational logic of G.V.C.s form a relevant factor in a multifactorial analysis of cases involving the frustration of any of the undergirding O.L.L.S. contracts? Such a factor would be relevant for consideration in light of the traditional reticence of common law courts to make out Excuse purely on the doctrinal grounds as the supervening effect tends towards the flexible end. In the context of supply chain contracts, we have already formulated dynamic scenarios in which an excusable failure of the determinant O.L.L.S. contract could initially affect a party's performance in the dependent contract by way of commercial hardship (shortage of supply, inflation of price, etc.). At such a stage, making a case for frustration of the latter contract may prove difficult on purely doctrinal grounds in a common law court with a traditional view of the subject. Whilst a robust hardship clause may provide alternative scope for Excuse in such a case, it is worth exploring how the context of G.V.C.s and O.L.L.S. contracts may contribute to an expansive interpretation of the contract for the purpose of determining frustration.

It is notable that occasional developments in industries embedded in global supply chains – such as shipping – have sometimes given rise to judicial decisions that take after the peculiarities of the industry or those developments. An example is in the string of *Suez Canal cases*[216] that buck the general principle that a contract is frustrated where an impossibility makes it incapable of being performed *in the manner stipulated* – for example,

[213] *See, e.g.*,James Hawley, Keith Johnson & Ed Waitzer, *Reclaiming Fiduciary Duty Balance*, ROTMAN INT'L J. PENSION MGMT., Fall 2011, at 4, 10. (arguing this third-party fiduciary was the implication of the provision of Employees Retirement Income Security Act of 1974 29 U.S.C. § 3(38) that defines "investment manager" as "anyone exercising discretion over plan assets," thus extending the duty of "governing fiduciaries", or trustees, to their delegates – in this case, the trustees" advisors).

[214] *Id.*

[215] UK's Contracts (Rights of Third Parties) Act of 1999 provides such an exception in cases where the contract expressly allows the beneficiary to enforce the right or clearly confers the benefit without explicitly evincing the intention of the parties to exclude the beneficiary's right of enforcement.

[216] These cases are a fallout of the closure of the Suez Canal on shipping and sale of goods contracts following hostilities between Israel and some Arab states in 1956 and 1967.

stipulation as to the port and time of shipment[217] or *as contemplated* – for example, as per the technical method.[218] In the *Suez Canal* cases, English courts[219] and American courts[220] were largely consistent in holding that the closure of the eponymous canal, which had necessitated that ships took the much longer route of the Cape of Good Hope, did not constitute, as the case may be, an event of frustration or commercial impracticability. In the English courts, the decision disregarded whether the Suez Canal route was merely envisaged[221] or expressly stipulated by the parties.[222] Similarly, the increase in time of delivery by about a third of the time, in one case,[223] or by two and a half times, coupled with the doubling of cost of carriage, in another,[224] were immaterial to the outcome. The American courts similarly denied commercial impracticability in spite of cost overruns to various degrees, including in one case where the overrun was over one-quarter of the original cost.[225]

Analysing some of these cases, Treitel has made the suggestion that the courts were influenced by a consideration of the balance of the overall market situation at the time performance was called for.[226] On the balance, economic upside from some of the emergent market conditions more than paid for the increased cost of sail or hire. In such an event, automatic termination on the ground of frustration would have opened the transaction to opportunistic behaviour by the party making the Excuse. Treitel did note the theoretical distortions inherent in these idiosyncratic decisions, considering that, in some earlier cases with similar risk in the outcome, the courts had nonetheless stuck with principle and made out frustration and the consequent termination. Treitel's proposal by way of remedy is to make termination optional to the party that may be prejudiced by the supervening event.[227] Of course, there are other solutions. One, admittedly more radical, is to enable contract-saving renegotiation or court-ordered adaptation similar to civil law jurisdictions. Another is to consider both the onerousness effect of the supervening event and other economic net-outcome in the market as part of the factors to be balanced in a multifactorial analysis. This second solution faces less challenge in path dependency, considering the emerging development of common law

[217] *See, e.g.*, Nicholl & Knight v. Ashton Edridge & Co. [1901] 2 K.B. 126.
[218] *See, e.g.*, Florida Power & Light Company v. Westinghouse Electric Corp. 826 F.2d 239 (1987).
[219] *See* Tsakiroglu & Co. v. Noble Thorl GmbH [1962] A.C. 93; *see also The Eugenia, supra* note 130.
[220] *See, e.g.*, Transatlantic Financing Corp. v. United States, *supra* note 84; *see also* American Trading & Prod. Corp. v. Shell Int'l Marine Ltd. 183. 453 F.2d 939 (2d Cir. 1972).
[221] *See* Tsakiroglu & Co. Ltd. v. Noble Thorl GmbH, *supra* note 224.
[222] *See* The Washington Trade [1972] 1 Lloyd's Rep. 463.
[223] *See The Eugenia, supra* note 130.
[224] *See* Tsakiroglu & Co. Ltd. v. Noble Thorl GmbH, *supra* note 224.
[225] *See* American Trading & Prod. Corp. v. Shell Int'l Marine Ltd., *supra* note 225.
[226] *See* Treitel, *supra* note 51, at 909.
[227] *Id.* at 910.

jurisprudence in this area, as discussed earlier in this article. What we attempt below is a preliminary exploration of how the nature of G.V.C.s and the O.L.L.S. contracts throw up factors that the courts may consider useful in such multifactorial analysis.

Among the five factors for consideration in a multifactorial analysis as established in the *Sea Angel's case*, the second, third and fifth factors outlined earlier in this article[228] appear to be the more relevant ones in cases of frustration concerning an O.L.L.S. contract. To single out "matrix or context of the contract' for the purpose of the current discussion, the *Planet Kids' case* demonstrates how a court may, having regard to the context, formulate the main purpose of the contract in order to determine if such a purpose has been frustrated. In that case, some of the relevant facts of which have already been stated,[229] in determining whether the relevant event – the destruction of the property – had frustrated the main purpose of the settlement agreement, the court took the view that such a purpose ought to be the common purpose of the parties in respect of the contract. Discerning the common purpose from the contract entailed objectively ascertaining the purposes of each party from the contract and from the context of its making. In the end, the court determined that the relevant context to the making of the settlement agreement was the inconvenience of the available alternative (compulsory acquisition of the property by the council and uncertainties as to timeliness and quantum of compensation under the governing law of such acquisition). Thus, the court stated:

> We consider the main common purpose of the contract was to settle the Public Works Act dispute and thus to achieve certainty that Planet Kids' lease would be terminated, to identify the timing of that termination and to set the amount of compensation payable for the consequential closure of Planet Kids' business.[230]

It was that common purpose that the court considered in reaching the determination that the contract had not been frustrated since the parties' objective of certainty and timeliness had been achieved by the settlement itself. The subsequent destruction of the property, with the consequent termination of the leasehold, was considered mere technicality that, having regard to the dictate of justice, was of no moment to the ultimate determination.

G.V.C.s are context-rich in the nature of the interdependency of the O.L.L.S. contracts that undergird them. This interdependent nature could provide illumination on the common purpose of the parties. In highly coordinated supply chains, partners in

[228] *See supra* Section 2.1.6.
[229] *See id.*
[230] *Planet Kids' case*, *supra* note 141, ¶ 96.

the chain understand that they are collaborators in a series of operations with the purpose of bringing a service or good to the end user. Also, the long-term nature of many of these contracts signalises the understanding that security of a series of exchanges (placement and fulfilment of orders) is a significant factor in the success of the operations. For a prefatory comment on how the typologies may provide such illumination, let us consider the three determinants of the typologies according to Gereffi et al. These are:

- C*omplexity* of the transaction reflected in the level of information and knowledge transfer required, particularly with respect to product and process specifications [hereinafter Complexity];
- Extent to which said information and knowledge can be *codified* and, therefore, transmitted efficiently and without transaction-specific investment between the parties to the transaction [hereinafter Codification]; and
- C*apabilities* of supply base (actual and potential) in relation to the requirements of the transaction [hereinafter Capabilities].[231]

Assigning a "high" and "low" value to a combination of these factors, eight governance typologies are possible, although the authors found only five in reality. We set out below the five typologies, ranging from that which requires the lowest degree of explicit coordination to that which requires the highest, while noting the factors in the behaviour of each that could contribute to the illumination of the common purpose of the G.V.C. actors:[232]

- *Markets*: These have the least need for explicit coordination, due to high-level Codification and Capabilities, but low-level Complexity. However, they are distinguished from mere transitory, spot markets by the repetition or repeatability of transactions therein. This last factor may establish a "course of dealing" modality that, although not explicit in the documented contracts, imports a context that may be useful in establishing common purpose.[233]
- *Modular chains:* These have high degrees of Complexity, Codification and Capabilities. Thus, while maintaining a relatively high degree of supplier independence, just as in the *Markets*, they are brought under control of the lead

[231] Gereffi et al., *supra* note 8, at 115.
[232] *See id.* at 113–16.
[233] *See supra* note 51 (for discussion of the impact of "cause of dealing" on interpretation of contract).

firm (buyer) through the high degree of specification in the order-making, even if still generic enough to reasonably dispense with the risk of transaction specificity in input investment.[234] Such order specification could provide a context through which common purpose may be established.

- *Relational chains:* Here, only Codification is low. Relational chains create complex interaction through which mutual dependency between the parties and asset specificity in input investment is established. In our view, these two factors create a scope to establish common purpose.
- *Captive chains:* Here, only the Capabilities of the suppliers are low. Relationships present a high degree of dependency on the buyer, thus subjecting the supplier to a relatively high switching cost. The buyer, on the other hand, bears a high cost in explicit control and monitoring. Again, these factors could provide a possible scope to establish common purpose.
- *Hierarchical chains:* It goes without saying that hierarchical relationships operate solidly in the context of a common purpose, since parties belong to the same corporate group that is linked through ownership and managerial control.

These typologies are, of course, conceptual categories within purely commercial contexts. The factors we have highlighted are those that show promise in establishing common purpose. Conferring them with legal consequence will have to turn on the factual circumstances of the cases. From these, over time and by inductive reasoning, legal principles may evolve which redefine the O.L.L.S. contracts broadly by conferring legal meaning on their varying operational nexus.

[234] A combination of high input specificity and supplier independence is a factor to be carefully considered, since it may leave room for hold-up risk against the buyer, as was the case with G.M. Motors and one of its suppliers (*see* Klein, *supra* note 39, at 61 & 70 n. 5).

CONCLUSION

Our analysis in this article and insights therefrom are useful in the narrow context of pandemic risks as well as generally, in the wider context of disruptive risks with global spread and dynamic propagation. Evidence suggests that occurrences of epidemics have become more frequent in the last few years and the prediction is that this trend is unlikely to abate any time soon. In this regard, we have reflected on the current approach to the draft of the "epidemic" item in the contractual enumeration of *Force Majeure* events and highlighted how this may now be insufficient in addressing the nature of the risk. In particular, the current style of drafting the *Force Majeure* clause portends a problem of indeterminacy due to the failure to apprehend the dynamic nature of pandemic risk and associated disruptions. In making suggestions for addressing the problem, we have called attention to the standard draft of the "war and hostilities" item in *Force Majeure* clauses as an example of a provision that better captures a risk of similar dynamism. While recognising the role that the *Force majeure* certificate issued by the Chinese authorities could play in formally bookending the fact of a pandemic and alleviating the problem of indeterminacy, we have noted some of the problems that may arise from the current practice.

The bigger fish in our pan is the insight that could be gained from an interplay of the aforesaid risk, on the one hand, and the nature of global supply chain contracts, or O.L.L.S. contract, on the other. At the core of this interplay is the disparity in the standards that applicable doctrinal and contractual regimes require, to make out Excuse for failure to perform a contract. Our starting point was the evidence from economics and supply chain management literature that commercial actors faced with such disruptions tend to seek contract- and relationship-saving solutions. The insight from our analysis is that doctrinal regimes of Excuse with dual structure – such as under the civil law – provide wider scope for readjustment to achieve contract saving than doctrines with a unified approach – such as common law frustration. Under the dual structure of the civil law, the more commercial grounds for Excuse are a separate doctrine and have separate consequences from the practical impossibility grounds. The unified approach generally has a stricter standard for making out Excuses on the more commercial grounds that, in any case, merely form a continuum with the stricter impossibility grounds under the frustration doctrine.

However, this insight commends little by way of guide to commercial actors on choice of law decisions. Firstly, this cannot be the sole basis for choosing the civil law regimes as the governing law of a contract. Empirical evidence on the overall preference

for English law in international transactions justifies our caution. Furthermore, utility of party autonomy in the development of the contractual regime of Excuse – through which standard *Force Majeure* and hardship clauses have continued to be developed – has created a dynamic interplay of the regimes in which parties could contract in and out of aspects of the applicable law of the contract.

In a global supply chain situation that is underlain by O.L.L.S. contracts, this dynamic could lead to mismatches in the Excuse regimes of the contractual chain. A mismatch occurs where failure to perform a determinant contract is more easily or much earlier excusable than a dependent contract within the same chain. This heightens the risk of supply chain disruption in the context of an event of the scale and dynamism of Covid-19. The doctrine-contract complex, which we developed in this article, provides a framework by which parties may test the contractual chain against a broad range of Excuse standards so that mismatches harboured therein may be spotted more easily. This is useful both in a post-event scenario, as an aid to negotiations aimed at contract saving. Similarly, it could be useful in an *ex ante* scenario as an additional tool of supply chain risk management. Our framework also contributes to the emerging area of scholarship exploring the role of legal regimes in G.V.C.s, of which global supply chains are a feature.