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Introduction: Risk and Uncertainty in the Early Modern World

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Abstract

This article introduces the various articles in this forum. It first sets the scene by showing why the maritime sector forms an excellent case study to investigate risk and uncertainty in the premodern world. Second, it problematises from a historical perspective both Frank Knight's and Douglass North's approaches to risk and uncertainty, arguing that notwithstanding the lack of data, premodern commerce could properly assess both risk and uncertainty. Third, it introduces the various articles in the forum.

Keywords

Early Modern, Insurance, Maritime Trade, Risk, Uncertainty

Introduction: Risk and Uncertainty in the Early Modern World

The early years of the 2020s have been marked by a polycrisis of pandemic, war and spiralling inflation.[1] The present authors resolved to seize the moment to reflect on the

1. Adam Tooze, 'Chartbook #131 Calibrating the Polycrisis – with the Help of the Bank of International Settlements', *Substack,* https://adamtooze.substack.com/p/chartbook-131-calibrating-the-polycrisis [7 February 2023].

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issues these crises have raised through examining historical examples across the centuries, bridging the gap between different subfields of history in the process. From May 2021 to June 2022, we hosted a series of online seminars (in partnership with the Institute of Historical Research in London) centred on the core theme of *Risk and Uncertainty in the Premodern World*. This forum brings together a handful of papers presented within this series, with a particular focus on the history of the early modern maritime world.

Actors in the maritime economy of the early modern world grappled with very similar challenges to those we are facing today, from political upheaval to pandemics, from climate change to principal–agent problems.[2] Maritime trade provides an invaluable insight into economic development and globalisation in the early modern period, while also intersecting with the development of fiscal–military states and overseas empires. Yet in undertaking trade, merchants, shipmasters and seamen faced human and physical hazards that forced them to bear tremendous risk in their daily lives. Put simply, life at sea was rarely smooth sailing.

Maritime actors persevered in the face of the challenges they encountered, supported by social, institutional and technological innovations that could alleviate (if not eradicate) them. Understanding these innovations, and grasping their significance within the economies of the preindustrial world, invites the historian to engage with broader theoretical frameworks in economic history. At the core of one of these essential frameworks are the dual concepts of risk and uncertainty, first defined by Frank Knight. Our online seminar coincided with the centenary of Knight's *Risk, Uncertainty and Profit*, a contribution to economic theory that sought to illuminate both periodic dangers that threaten economic value and the positive potential for change and growth, particularly through entrepreneurship.[3]

In *Risk, Uncertainty and Profit*, Knight drew a distinction between *risk* (an adverse outcome that occurs at a frequency we can accurately predict) and *uncertainty* (a situation where we cannot even exhaustively list the possible outcomes of a decision, much less estimate the bad outcomes' probability).[4] Recognising that there are certain risks that threaten people and their economic ventures with predictable frequency places a powerful tool in our hands. Perhaps no period more than the COVID-19 pandemic has demonstrated how usefully the concept and management of risk can be leveraged – to protect public health, for example – and yet how profoundly unsatisfying the knowledge gleaned from the observation and measurement of risk can be. Risk management approaches provide no clues to foresee unique historical events; they have no answers for the individual who wonders whether a certain family member or a specific plan will fall prey to a rare but devastating threat. Therefore, individuals and official decision-makers are mostly constrained to operate in the realm of uncertainty, or as some authors

2. Geoffrey Parker, *Global Crisis: War, Climate Change and Catastrophe in the Seventeenth Century* (New Haven, CT, 2013).
3. Frank Knight, *Risk, Uncertainty, and Profit* (Boston, MA, 1921). For an example of Knight's influence in the study of entrepreneurship, see R. Daniel Wadhwani and Christina Lubinski, 'Reinventing Entrepreneurial History', *Business History Review*, 91, No. 4 (2017), 767–99, at 777; Mark Casson, *Entrepreneurship: Theory, Networks, History* (Cheltenham, 2010), 7.
4. Knight, *Risk, Uncertainty, and Profit*, 247–53.

have more recently argued, even in the domain of 'radical uncertainty' (what might be deemed 'unknown unknowns', or what Jonathan Levy dubs 'the inescapable remainder of ignorance in human affairs'), a concept that seems very fitting for the early stages of the COVID-19 pandemic.[5]

In the field of maritime history, Knight's framework has most famously been applied to marine insurance. Douglass North, for example, argued that marine insurance was one of the innovations that enabled the 'transfer from uncertainty to risk'.[6] Yet in trying to neatly map Knight's theoretical framework onto the historical landscape, the teleological narrative that North presented ends up obscuring the complexity of risk and uncertainty in early modern maritime trade. In keeping with the narrow focus of older scholarship in New Institutional Economics on the importance of specific institutional forms, North overlooked the subtleties of how institutional innovations were implemented.[7] Just as the famous limited partnership model did not dominate the business world of Renaissance Florence when it was introduced, neither did marine insurance supersede all other risk management tools.[8] In fact, many such tools were used alongside insurance throughout the early modern period, including cargo spreading, bottomry loans, general average and improved shipbuilding technology (as Phillip Reid shows in his article in this forum).[9] Marine insurance also performed different functions across time and space. In sixteenth-century Antwerp, insurance was a useful tool of risk management for intra-European maritime ventures where the risk was fairly predictable. However, for ventures to the North African coasts or to the New World, insurance was (in a similar way to bottomry loans) more a speculative tool, as high premiums made it attractive for investors to

5. John Kay and Mervyn King, *Radical Uncertainty: Decision-making beyond the Numbers* (London, 2020); Jonathan Levy, 'Radical Uncertainty,' *Critical Quarterly*, 62, No. 1 (2020), 15–28. Both draw on the work of Keynes; here, see John Maynard Keynes, 'The General Theory of Employment', *Quarterly Journal of Economics*, 51, No. 2 (1937), 209–23, at 213–14.
6. Douglass North, *Institutions, Institutional Change and Economic Performance* (Cambridge, 1990), 126–27. Ron Harris has shown that North did not adopt Knight's theories wholesale, but added an important nuance: for Knight, insurance is the *manifestation* of the shift within an economic environment from uncertainty to risk, whereas for North, insurance *is itself a means* of transforming uncertainty into risk. Ron Harris, 'General Average and all the Rest: The Law and Economics of Early Modern Maritime Risk Mitigation', in Maria Fusaro, Andrea Addobbati and Luisa Piccinno, eds, *General Average and Risk Management in Medieval and Early Modern Maritime Business* (Cham, 2023), 33–60.
7. A more nuanced approach can be found, however, in Ron Harris, *Going the Distance: Eurasian Trade and the Rise of the Business Corporation, 1400–1700* (Princeton, NJ, 2020).
8. Francesca Trivellato, 'Renaissance Florence and the Origins of Capitalism: A Business History Perspective', *Business History Review*, 94, No. 1 (2020), 229–51.
9. Here, see the contributions in Fusaro, Addobbati and Piccinno, eds, *General Average and Risk Management* , particularly the introduction by Maria Fusaro; Phillip Hellwege and Guido Rossi, eds, *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin, 2021). See also the article by Phillip Reid in this forum.

offer insurance to merchants and shipmasters for their own gain.[10] Thus, to put it plainly, there was no linear development whereby marine insurance replaced other risk management tools. This forum explores the consequences of this reality.

A further issue with North's application of the Knightian framework is that Knight's definition of risk is premised on the collection of *data*, which yields the historical frequency of adverse events and provides the basis for future predictions. Yet data concerning maritime risks and the incidence of shipwreck and other accidents at sea was not being collated and analysed until the eighteenth century at the earliest.[11] Insurance contracts were often underwritten to cover what were clearly uncertainties in a Knightian sense (e.g. the prospect of a vessel's capture in a context of political strife, or even the potential for enslaved men and women brought on a ship to insurrect, as Mallory Hope shows in her article in this forum).[12] Uncertainty continued to create both problems and (speculative) opportunities for merchants engaged in maritime trade throughout the early modern period and beyond.[13] Yet speculation and taking in passive revenue by shouldering risk and uncertainty on behalf of others were not avenues equally available to all. The benefits of the financialisation of risk mainly accrued to those with access to capital, deepening over time the inequalities within and between states and regions. Hope's article attests to the reality that innovations in the use of marine insurance were deployed in furtherance of the Atlantic slave trade, enriching a small minority at the expense of millions. Moreover, as Maria Fusaro has argued, a great deal hinges on *who* bears the burden of risk and uncertainty in maritime and commercial enterprises.[14]

Rather than seeing uncertainty only as something to be avoided, some authors like Jonathan Levy, as well as John Kay and Mervyn King, have more recently argued for the importance of uncertainty: profit and entrepreneurship are premised on the very existence of uncertainty, since uncertainty creates opportunity.[15] Furthermore, uncertainty left an indelible mark on social rituals and material culture, a theme taken up by Jessen Kelly in this forum. From the seminar series as well as the articles collected in this forum, it

10. Herman Van der Wee, *The Growth of the Antwerp Market and the European Economy, Fourteenth–Sixteenth Centuries* (3 vols, The Hague, 1963), II, 327–28.
11. Giovanni Ceccarelli, 'The Price for Risk-taking: Marine Insurance and Probability Calculus in the late Middle Ages', *Electronic Journ@l for History of Probability and Statistics*, 3, No. 1 (2007), 1–26; Robin Pearson, 'Moral Hazard and the Assessment of Insurance Risk in Eighteenth- and Early Nineteenth-Century Britain,' *Business History Review*, 76, No. 1 (2002), 1–35.
12. See Christopher Kingston, 'Governance and Institutional Change in Marine Insurance, 1350–1850', *European Review of Economic History*, 18, No. 1 (2013), 1–18.
13. The variegated consequences of this interplay are explored in Emily C. Nacol, *An Age of Risk: Politics and Economy in Early Modern Britain* (Princeton, NJ, 2016); Jeremy Baskes, *Staying Afloat: Risk and Uncertainty in Spanish Atlantic World Trade, 1760–1820* (Stanford, CA, 2013).
14. Maria Fusaro, 'The Burden of Risk: Early Modern Maritime Enterprise and Varieties of Capitalism', *Business History Review*, 94, No. 1 (2020), 179–200; see also Lewis Wade, *Privilege, Economy and State in Old Regime France: Marine Insurance, War and the Atlantic Empire under Louis XIV* (Woodbridge, forthcoming in 2023/4).
15. Kay and King, *Radical Uncertainty*; Levy, 'Radical Uncertainty'.

becomes clear that societies handled (and still handle) risk and uncertainty in ways that were culturally specific. Theories of risk and uncertainty should not be constructed solely through the lens of economic institutions and economic efficiency, but would benefit from incorporating cultural, religious, material, social and linguistic approaches.

In short, we need to improve both our historical knowledge of how people dealt with risk and uncertainty and improve our theoretical premises, particularly when it comes to the maritime sector, a valuable bellwether for early modern globalisation, war and economic growth. This necessitates recognising that there was no simple transfer from 'uncertainty to risk', but that both could (and still can) exist side by side. This forum is only a first step towards reframing the study of risk and uncertainty, using the early modern maritime world as a case study.

Reid's essay, 'Risk, Uncertainty, and the British Atlantic Merchant Ship as a Technology for Profit, 1600–1800', opens the forum by taking us to the scene where the dramas of maritime risk and uncertainty mainly played out: on board merchant ships. According to many previous scholars, improvements in the construction of merchant ships between the seventeenth century and the final decades of the eighteenth century were rare and incremental. Historical accounts of the growing security and productivity of overseas trade tend to paint shipbuilding as a technologically stagnant sector, contrasting with the dynamic changes taking place within financial markets and in state efforts to curb piracy.

Reid shows that the pathway of innovation in ship construction was circumscribed by the natural hazards of sailing, as well as by commercial risks. While other historians have typically recognised only gains in speed and vessel size as leaps forward, Reid argues that small adjustments in the construction of ships were also meaningful, culminating in new vessels leaving British shipyards with designs continually better adapted to their specific lines of trade. By the eighteenth century, shipwrights often had the technology to build vessels that were faster and larger, but their clients also asked them to weigh other variables, such as ships' cargo capacity, structural integrity and the salaries of the sailors needed to manage them. Drawing on his practical experience with sailing ships, Reid illustrates how a vessel with the cleanest, most hydrodynamic lines would have such a narrow hull that it would leave little space for merchants to stock their goods. Yet neither was bigger always better: on many sea lanes, traders did not want to employ a ship with the maximum cargo space, for fear of loading merchandise that might spoil before it could be sold in shallow, preindustrial markets that could not absorb a huge quantity of consumer goods at once. Although Reid's article focuses on shipbuilding in the British Empire on both sides of the Atlantic during the eighteenth century, it is likely that many of the connections he makes between merchant ship construction and risk mitigations would apply to vessels of the same period flying other flags as well.

The next essay in the forum, 'Risk and Uncertainty in France's Atlantic Slave Trade' by Hope, again centres merchants who were experimenting with and adapting an existing technology (marine insurance) to better cope with the risks and uncertainties of the Atlantic world economy. In her article, Hope dissects 13 marine insurance policies that were underwritten in France during the eighteenth and early nineteenth centuries on the hulls of slave-trading ships and on enslaved people's implied economic value. As she shows, one of the most surprising aspects of the 13 insurance policies is how infrequently they mention the types of risk that the shipwright-protagonists in Reid's article were engaged in mitigating (such as damages wrought by storms or hidden reefs). The clauses that insurers and traders added in order to tailor their contracts for the slave trade focus instead on dangers that proceeded from human agency, including breakdowns in trade relations between French subjects and local merchants, the outbreak of war between African or European polities, and resistance mounted by enslaved men and women (insurrection or forms of self-harm).

These examples of French marine insurance policies show that slave traders unquestionably credited both free African merchants and rulers and enslaved people with agency. Political peace or turmoil in West African trading ports had a great impact on whether French slave traders' voyages could be completed and whether they returned profits. Going further, Hope argues that we should rethink the role of marine insurance as a financial tool in the early modern period. If losses resulting from conflicts between African kingdoms, bandits' attacks, and the decision of captives to resist enslavers – events so clearly unpredictable, even unrepeatable – could sometimes be covered by a marine insurance policy, then this must be seen as a vehicle for redistributing uncertainty as well as risk, as defined by Knight.

In the third essay, 'On Reckoning with Games of Chance in the Dutch Republic', Kelly continues to explore Knight's concepts of risk and uncertainty, but shifts our focus to their ludic and whimsical dimensions. She presents us with drink-up cups (*drinkuiten*), designed mainly in the Dutch Republic, which playfully embodied risk through various forms, such as dice, movable wheels of fortune (both to be used in drinking games), or female figures.

Most of the original owners and users of these intricate *drinkuiten* were no strangers to the measures for managing maritime risk and uncertainty described in Reid's and Hope's articles. (In the seventeenth and eighteenth centuries, Dutch shippers were able to offer the most competitive freight rates, and institutions such as the Amsterdam Chamber of Assurance helped to build the international reputation of the Dutch insurance market.[16]) Accustomed to soberly weighing the risks and potential payoffs of ventures in their offices and warehouses during the day, during their off-hours, Dutch merchants and insurers and their social equals enjoyed flirting with the risks of embarrassment or spilled drink. The Dutch finance world's obsession with risk was almost parodied in drink-up cups. As underwriting and investing activities turned the possibility of loss into wealth, precarious *drinkuiten* – with their accoutrements that facilitated games and bawdy conversation – transformed risk into fun. Kelly's scholarship thus considers how economic values and engagement with risk and chance shaped the objects and art that were created, purchased and prized in an early modern society.

The forum concludes with a brief coda, drawing together the contributions and reflecting on how they illuminate present realities. Although the three articles are diverse in the ground they cover, a clear and common thread runs through them: as Europeans extended their gaze towards distant shores at the outset of the early modern period, their

16. Here, see Sabine Go, 'Amsterdam 1585–1790: Emergence, Dominance, and Decline', in Adrian Leonard, ed., *Marine Insurance: Origins and Institutions, 1300–1850* (Basingstoke, 2016), 107–29.

confidence, ambition, greed and cruelty were simultaneously curtailed, shaped and exacerbated by the vicissitudes of the sea.[17] Maritime actors tried to (re)fashion instruments (material, financial and psychological) to serve their needs as they grappled with a changing world, where risk and uncertainty met and intertwined. Thus, as these articles attest, bridging the gap between different subfields of history (chiefly, social, economic and cultural history) offers a new pathway to studying historical and contemporary experiences of risk and uncertainty.

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17. For a work that argues this forcefully, see Marcus Rediker, *The Slave Ship: A Human History* (London, 2008).

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