

## RESEARCH STATEMENT

My research ranges across topics in global economic history, institutional economics, and historical political economy. I use the tools of modern economics to study questions of major historical importance. Recent research sheds new light on the origins of religious liberty in Europe, the rise of modern states across both ends of Eurasia, and the impact of epidemic disease.

### *Theme 1: The Origins of Religious Freedom*

Today, Western societies are closely associated with the principles of liberty and freedom. However, in the medieval and early modern period, European societies were committed to an opposing ideal of religious conformity. European societies engaged in more intensive religious persecutions than did most non-western societies. This raises a puzzle: why did liberal ideas of religious freedom emerge in Europe rather than in other parts of the world? Resolving this question sheds new light on the origins of political and religious freedom and the rule of law in Europe. In joint work with my colleague Noel Johnson, I seek to understand how this commitment to religious freedom came about and what its consequences were. This strand of research culminated in the publication of *Persecution & Toleration: The Long Road to Religious Freedom* (CUP, 2019).

The backbone of our argument draws on several published papers. The first of these focus on the conditions facing Jews in early modern Europe. In my paper, *The Political Economy of Expulsion: the Regulation of Jewish Moneylending in Medieval England*, I outline how the conditional toleration equilibrium operated in medieval England. Jews were protected by the king in exchange for their services as moneylenders. Jewish moneylending generated monopoly rents that the king could easily tax because the prohibition on usury restricted lending at interest between Christians. I show that once this system of official Jewish moneylending was dismantled, it led to the expulsion of the Jews from England as this was the only basis for their toleration given the political economy of the medieval English state.

My paper with Robert Warren Anderson and Noel Johnson, *Jewish Persecutions and Weather Shocks from 1100 to 1800* further shows how the conditional toleration equilibrium that characterized medieval and early modern Europe was vulnerable to supply shocks. To obtain empirical identification, we use a dataset of reconstructed temperature compiled by climate scientists as a proxy for periods of economic stress. Our analysis establishes that colder weather led to a higher probability of persecution and that this effect was largest in cities with poor quality soil and with little state history. We explore institutional explanations for why this relationship between supply shocks and persecutions faded away after around 1600. This paper was awarded the Royal Economic Society Prize for the Best Paper published in the *Economic Journal* in 2017.

To shed more light on the institutional determinants of toleration and persecution, in work with Theresa Finley, a graduate student at George Mason published in the *Journal of Law and Economics*, I turn to the case study of the Holy Roman Empire. We show that during the Black Death pogroms were more intense in those parts of the Holy Roman Empire where the authority of the emperor was contested by the power of Bishops, Archbishops, and the Free Imperial Cities.

Of course, our concern is not solely with the condition of Europe's Jewish communities, but more generally in religious freedom for dissident religious movements. In *Legal Centralization and the Birth of the Secular State*, Noel Johnson and I employ a formal model to consider how the incentive of a state to enforce religious conformity changes as it encounters individuals with heterogeneous beliefs. We show that premodern polities were prepared to offer conditional toleration to heterodox religious groups when they lacked the capacity to enforce conformity or when the costs of repressing religious dissent were especially high. This model is then applied to explain why the French monarchy was able to successfully repress the Cathars in the 13th century but not the Protestant Reformation of the 16th century, and how the failure to eliminate the Huguenots provided a breathing space for the later development of ideas of religious freedom.

Another aspect of religious toleration concerns the persecution of witches. Many factors are responsible for the outbreak of witch killings that occurred in Europe after 1550. We consider one aspect of this problem: the incentives early modern states had to either indulge or suppress local witch-hunting initiatives. In *Taxes, Lawyers, and the Decline of Witchcraft in France*, we provide evidence that legal centralization led authorities in France to internalize the costs of witch panics and implement legal reforms restricting witch-hunts. This paper suggests that it was self-interested behavior by political elites rather than a commitment to liberal or rational values that led to the end of witch-hunting. Both of the papers therefore sketch a political economy explanation for the rise of religious freedom prior to the Enlightenment.

In *Jewish Communities and City Growth in Preindustrial Europe*, we turn to the effects of religious freedom on economic development. We document that cities with Jewish communities did not grow any faster than cities without Jewish communities before 1600. However, after 1600, we show that they did experience faster growth. We argue that this reflects the ability of some states after 1600 to enforce general rules of behavior as required for genuine religious freedom.

Finally, in *Negative Shocks and Mass Persecutions: Evidence from the Black Death*, Remi Jebwab, Noel Johnson and myself study what factors determined the vulnerability of Jews communities during a demographic crisis. We identify factors which made Jews more likely to be scapegoated, such as a history of antisemitic prejudice and whether the timing of the Plague coincided with a major Christian festival, and factors that made Jews more likely to be protected, such as their role in

trade or moneylending.

### *Theme 2: Different Paths of State Development in Eurasia*

To gain insight into the formation of modern economies and polities, I believe that historical research also has to be comparative. My work with Noel Johnson focuses on the rise of modern states in western Europe, particularly in England and France. I have also begun a research project comparing the trajectory of state development in China and Japan with the trajectory of state development in Europe. This project comprises several projects with a variety of co-authors: Tuan-Hwee Sng (NUS), Chiu Yu Ko (NUS), Chiaki Moriguchi (Hitotsubashi), and Jesús Fernández-Villaverde (Penn).

Scholars such as Jared Diamond and Eric Jones argue that one reason why economic growth began in Europe rather than in China was the fact that China was a unified empire for much of its history while Europe was fragmented into numerous competing states. My main paper with Tuan-Hwee Sng and Chiu Yu Ko, *Unified China and Divided Europe*, provides a novel answer to why this was the case. We argue that the external threat of invasion posed by the steppe was more severe than any of the threats Europe faced, and that it came from a single direction. To evaluate this argument we build a formal model of state formation. This model generates a range of predictions concerning the location of capital city, frequency of internal and external wars, levels of taxation, and population growth that are consistent with the historical record.

Together with Tuan-Hwee Sng and other co-authors, I am working on several further projects that will argue that, contrary to the claims of modernization theorists, there is no single path to the modern state. Together with Chiaki Moriguchi we show that China and Japan did not experience the same process of military competition and state formation that Europe underwent between 1500 and 1800. And today, East Asian countries appear to be following a different trend towards an alternative form of modern, developed, market orientated, but not necessarily liberal states.

My other work in East Asian economic history is in a similar vein, focusing on the role of political institutions in shaping economic outcomes in the preindustrial period. For example, my paper with Melanie Meng Xue studies the effect of the persecution of intellectuals on social capital in Qing China. We show that persecutions reduced social capital in Qing China and have left a legacy of lower levels of public good contributions and interpersonal trust.

A new paper, *The Fractured-Land Hypothesis* with Jesús Fernández-Villaverde, Youhong Lin, and Tuan-Hwee Sng, develops a simulation to model the relative contribution of fractured land and agricultural productivity to Europe's tendency to political fragmentation and China's tendency to political centralization.

### *Theme 3: The Economics of Religion and Cultural Change*

Modernization involves cultural change as well as economic and political change. My main interest is in studying how religion and culture are shaped by changing economic conditions and incentives. In my paper with Jean-Paul Carvalho (UCI), *Jewish Emancipation and Schism: Economic Development and Religious Change*, we study how economic development in 19th-century Europe led to traditional Judaism splitting into both Reform and Ultra-Orthodox variants of Judaism. With Jean-Paul Carvalho and Michael Sacks, I study how this schism led to different Jewish communities making different investments in education and human capital. In a further paper, *Resisting Education*, we show that increases in the returns to education can induce members of a minority culture to invest less in education.

In a recent work with Desiree Desierto entitled *The Political Economy of Status Goods: Evidence from Preindustrial Europe*, we study the causes of sumptuary legislation in preindustrial Europe. We have compiled a unique new dataset of sumptuary laws at the country and city-level for all Europe. Sumptuary laws are absent prior to around 1200 and proliferate in the late Middle Ages and Early Modern period before disappearing after 1700. We develop a formal model to understand why elites would be willing to introduce costly regulation in order to suppress status competition from the rising middle class. This model generates a non-monotonic relationship between sumptuary laws and income per capita. We test and find empirical support for this prediction in our data.

## RESEARCH OUTCOMES

### Theme 1: Religious Freedom in Early Modern Europe

- *Persecution & Toleration: The Long-Road to Religious Freedom* with Noel Johnson. Cambridge University Press. 2019.
- “Jewish Persecutions and Weather Shocks from 1100 to 1800,” with Robert Warren Anderson and Noel D. Johnson, *Economic Journal*, June 2017, vol. 127, Issue 602, pp 924-958.
- “Jewish Communities and City Growth in Preindustrial Europe”, with Noel Johnson, *Journal of Development Economics*, July 2017 vol. 127, pp 339-354.
- “Negative Shocks and Mass Killings: Evidence from the Black Death”, with Remi Jedwab, and Noel D. Johnson. *Journal of Economic Growth*, vol. 24 (4), December 2019, pp. 345-395.
- “Plague, Politics, and Pogroms: The Black Death, the Rule of Law, and the persecution of Jews in the Holy Roman Empire”, with Theresa Finley, *Journal of Law and Economics*, May 2018, vol. 61, Issue 2, pp 253-277.
- “Taxes, Lawyers, and the Decline of Witchcraft Trials in France? with Noel D. Johnson. *Journal of Law and Economics*, February 2014, vol. 57, Number 1, pp. 77-112
- “Evading the Taint of Usury: the Usury Prohibition as a Barrier to Entry”, *Explorations in Economic History*, vol. 47, issue 4 pp. 420-442, 2010.
- “Legal Centralization and the Birth of the Secular State” with Noel D. Johnson. *Journal of Comparative Economics*, vol. 41, issue 4. November 2013.
- “The Political Economy of Expulsion: the Regulation of Jewish Moneylending in Medieval England”, *Constitutional Political Economy*, vol. 32, issue 4, pp. 374-406, 2010.
- “Economic History”, The Routledge Companion to Jewish History and Historiography, edited by Dean Phillip Bell.

### Theme 2: Different Paths of State Development in Eurasia

- “Unified China and Divided Europe” with Chiu Yo Ko and Tuan-Hwee Sng, *International Economics Review*, Volume 59, Issue 1, pp. 285-327.
- “Tax Farming and the Origins of State Capacity in England and France”, with Noel D. Johnson, *Explorations in Economic History*, 51,1, pp. 1-20 January 2014.
- “Autocratic Rule and Social Capital: Evidence from Imperial China” with Melanie Meng Xue.
- “Geopolitics and Asia’s Little Divergence: A Comparative Analysis of State Building in China

and Japan After 1850”, with Chiaki Moriguchi, and Tuan-Hwee Sng. *Journal of Economic Behavior & Organization* November 2018, Volume 155, pp. 178-204.

- “States and Economic Growth: Capacity and Constraint,” with Noel D. Johnson, *Explorations in Economic History*, April 2017, vol. 64, Issue 2, pp. 1-20.
- “The Fractured Land Hypothesis” with Jesus Fernandez-Villaverde, Tuan-Hwee Sng, and Lin Youhong.
- “Political Economy” in the Handbook of Cliometrics. Springer. 2019

*Theme 3: The Economics of Religion and Cultural Change*

- “Jewish Emancipation and Schism: Economic Development and Religious Change”, with Jean-Paul Carvalho. *Journal of Comparative Economics*, August 2016, vol. 44, Issue 3, pp. 562-584.
- “Education, Identity and Community: Lessons from Jewish Emancipation” with Jean-Paul Carvalho and Michael Sacks, *Public Choice*, April 2017, vol. 171, Issue 1, pp. 119-143.
- “Resisting Education”, with Jean-Paul Carvalho. 2016.
- “The Political Economy of Status Competition: Sumptuary Laws in Preindustrial Europe” with Desiree Desierto. 2020