

1 Introduction

Tracing the origins and consequences of major political upheavals is an important research agenda among political scientists. European colonization and settlement have received much attention as a major disruption that altered the institutional paths of developing nations. In areas where Europeans settled, inclusive institutions that protected property rights and civil liberties emerged, whereas Europeans were more likely to set up extractive institutions in places where they could not settle in large numbers (Acemoglu, Johnson and Robinson, 2001; Hariri, 2012; Woodberry, 2012). While modern settlement patterns by Europeans have been studied extensively, much less is known about how pre-modern settlements affect economic and political development.

This study examines one of the largest colonization processes in medieval Europe: the Viking colonization of England. In 878, a great Viking army managed to conquer most of eastern England. Scholars estimate that in the aftermath of the conquest, a minimum of 35,000 Vikings migrated out of Scandinavia and settled in the newly conquered areas of England (Kershaw and Røyrvik, 2016). The large Viking settlement became a critical juncture that fundamentally altered the institutional framework of medieval England. Accordingly, historians suggest that the Viking settlement resulted in the collapse of previously centralized kingdoms, which were then replaced by a weak and fragmented power structure (Loyn, 1994; Hadley, 2000; Townend, 2014).

I argue that the collapse of political order and the weak kingdom that emerged with the Viking settlement of eastern England gave rise to diverse effects on economic and political development. First, the Vikings produced an environment characterized by political turmoil and violence, which led to lower levels of development. Second, the weak Viking kingdom diminished the political power of local rulers at the expense of the peasantry. The increased bargaining power of peasants enabled them to exploit their newly won strength and pressure local rulers for better political rights.

To assess this argument, I make use of the Domesday Book (1066-1086), which includes unique and highly detailed information on income and political rights of over 16,000 manors (small administrative units) in early medieval England. I then combine this dataset with a novel measure of the Viking settlement in eastern England. Using these data sources, I offer empirical evidence that weak Viking kingdom is associated with lower levels of income and inclusive political rights among the peasantry. These correlations are obtained across an extensive set of specifications and control variables.

Despite a long range of controls and robustness checks, the correlations may still be confounded by other unobservable factors. To alleviate this concern, I make use of a spatial regression discontinuity design (RDD). In 878, a treaty between the English king Alfred and the

Danish Viking king Guthrum was signed. The treaty effectively formalized the boundaries of the English kingdom in the west and the Viking territory in the east, the so-called Danelaw. The Danelaw border ran through the midlands of England and was for many decades a strong demarcation between the two territories. The main logic of the RDD is to examine manors that are sufficiently close to the border between the English and Viking kingdoms. The benefit of this strategy is that it accounts for unobservable factors that vary smoothly across space. The RD estimates are similar to the OLS results. Manors that fall within the Danelaw experienced lower levels of income but also enjoyed inclusive political rights.

I also provide evidence on the two mechanisms that produced these diverse effects on economic and political development. First, to examine if the Viking settlement stunted long-run development by creating political turmoil, I geocoded data on political violence in medieval England. The results show that medieval manors settled by Vikings were more likely to experience political violence in the period between 954 and 1086, suggesting that intensified violence is possibly one mechanism driving lower incomes in areas previously controlled by Vikings. Second, I construct a new dataset on medieval castles to examine if the Viking settlement empowered the peasantry at the expense of local rulers. Castles enabled local rulers to exercise authority and control over the local territory. Thus, proximity to castles can serve as a reliable proxy for military bargaining power between peasants and local rulers. I show that Viking settlements are more likely to be located further away from medieval castles, indicating that local rulers may have been weaker in areas settled by Vikings.

This study speaks to a prominent literature on inclusive institutions (North, 1981,9; Acemoglu, Johnson and Robinson, 2005; Acemoglu and Robinson, 2012). I show that the Viking settlement of eastern England led to the emergence of inclusive institutions but that such institutions do not necessarily promote pre-modern development. This raises fundamental questions about the research agenda on inclusive institutions, which was initially sparked by North (1981) and later elaborated by Acemoglu and Robinson (2012). The basic assumption of North's research agenda is that rulers must be constrained. Otherwise, they exploit political power to enrich themselves by seizing property and, thereby, undermining economic prosperity. Epstein (2000) has criticized North for projecting an image of a contemporary strong state back in time. The problem is that historical polities lacked such centralization, which only emerged in Europe in the 19th century. Economic growth in pre-modern times was inhibited by the absence of central power and not by the abuse of central power (see also Centeno, 2003; Stasavage, 2020, for similar arguments). This study complements Epstein's (2000) viewpoint by demonstrating that state centralization is much more important for pre-modern development than constrains on authority. Rulers must be powerful before constrains matter for development.

References

- Abramson, Scott and Carles Boix. 2019. "Endogenous Parliaments: The Domestic and International Roots of Long-Term Economic Growth and Executive Constraints in Europe." *International Organization* 73(4):793–837.
- Acemoglu, Daron and James Alan Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. New York: Crown.
- Acemoglu, Daron, Simon Johnson and James A. Robinson. 2005. Institutions as a Fundamental Cause of Long-Run Growth. Vol. 1 of *Handbook of Economic Growth* Elsevier chapter 6, pp. 385–472.
- Acemoglu, Daron, Simon Johnson and James Alan Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review* 91(5):1369–1401.
- Blaydes, Lisa and Eric Chaney. 2013. "The Feudal Revolution and Europe's, Rise: Political Divergence of the Christian West and the Muslim World before 1500 CE." *American Political Science Review* 107(1):16–34.
- Centeno, Miguel Angel. 2003. *Blood and Debt: War and the Nation-State in Latin America*. Pennsylvania, USA: Penn State University Press.
- Doucette, Jonathan Stavnskær and Jørgen Møller. 2020. "The Collapse of State Power, the Cluniac Reform Movement, and the Origins of Urban Self-Government in Medieval Europe." *International Organization* p. 1–20.
- Epstein, Stephan R. 2000. *Freedom and Growth: The Rise of States and Markets in Europe, 1300-1750*. Abingdon: Routledge.
- Hadley, Dawn. 2000. *The Northern Danelaw: Its Social Structure, c.800-1100*. New York (NY): continuum.
- Hariri, Jacob Gerner. 2012. "The Autocratic Legacy of Early Statehood." *American Political Science Review* 106(3):471–494.
- Kershaw, Jane and Ellen C. Røyrvik. 2016. "The 'People of the British Isles' project and Viking settlement in England." *Antiquity* 90(354):1670–1680.
- Kokkonen, Andrej and Jørgen Møller. 2020. "Succession, power-sharing and the development of representative institutions in medieval Europe." *European Journal of Political Research* 59(4):954–975.
- Loyn, Henry Royston. 1994. *The Vikings in Britain*. New Jersey: Blackwell Publishers.
- North, Douglass. 1981. *Structure and Change in Economic History*. New York: Norton.
- North, Douglass. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

- North, Douglass and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *The Journal of Economic History* 49(4):803–832.
- North, Douglass and Robert Thomas. 1973. *The Rise of the Western World: A New Economic History*. Cambridge: Cambridge University Press.
- Stasavage, David. 2010. "When Distance Mattered: Geographic Scale and the Development of European Representative Assemblies." *American Political Science Review* 104(4):625–643.
- Stasavage, David. 2020. *The Decline and Rise of Democracy: A Global History from Antiquity to Today*. Princeton: Princeton University Press.
- Townend, Matthew. 2014. *Viking Age Yorkshire*. Middleton: Blackthorn Press.
- Woodberry, Robert D. 2012. "The Missionary Roots of Liberal Democracy." *The American Political Science Review* 106(2):244–274.