1 Geography, Industrialization, and Capacity: An Overview

The history of political development suggests that a functioning, capable state is a necessary condition for the political pursuit of equality (Besley and Persson, 2011; Soifer, 2013). Both the regulation of markets and the reallocation of income and wealth through the political process requires the capacity to measure, count, record, tax, and distribute. A capable state does not guarantee effective regulation or redistribution, but without one neither is possible. Fiscal capacity is the ability of governments to extract sufficient levels of revenue to fund policy goals. It poses a constraint on those who lack it but does not determine the choices of those who have it.

Conceptually, it is important to distinguish between capacity and policy choice. Effective taxation and redistribution can occur only if (1) effective state bureaucracies are fully in place, (2) those bureaucracies have developed to have relatively similar levels of capacity, and (3) there is enough political support within the polity to enact such interventions. Capacity refers to the potential to implement effectively a political choice: it requires resources, organization, and personnel (Dincecco, 2017).

In the two volumes that compose this Element we highlight the importance of spatial inequalities (both economic and political) to the development of fiscal capacity. We argue that differential capacity levels are a key driver of the politics of inequality around the globe today because capacity serves as the link between legacies of spatial inequalities and variation in levels of redistribution. In Figure 1 we provide an overview of the focal variables in our analysis: the link between spatial inequality (measured with the coefficient of variation in subnational GDP per capita) and fiscal capacity (measured with total tax revenue as a percentage of GDP) in Figure 1(a), and the link between fiscal capacity and redistribution (measured with the reduction in the Gini coefficient through government taxes and transfers) in Figure 1(b). In Figure 1(a), we see a strong negative correlation between subnational disparities in economic productivity and long-run fiscal capacity. In Figure 1(b), we see that this fiscal capacity is, in turn, a strong predictor of redistributive effort. Countries with high levels of tax collection are those that make the greatest efforts to reduce inequality. They are also the ones with less skewed economic geographies.

Within nearly all countries of the world, there is an enormous spatial skew in prosperity, as certain regions and cities pull far ahead of the rest of their nations. Concentration of economic advantage, in turn, translates into political influence. The spatial skew in economic fortunes reflects the combined effect of geographic endowments and industrialization processes. Because of specific characteristics of their process of economic modernization, early industrializers...
Political Economy

Figure 1 Spatial inequality, fiscal capacity, and reduction in inequality.

Cross-sectional data of national mean values. (a) Correlation is $p = -0.54$. Independent variable: Gini coefficient of subnational GDP per capita (Rogers, 2015). Dependent variable: Total Tax Revenue (% GDP) (Prichard et al., 2014). (b) The correlation is $p = 0.63$. Independent variable: Total Tax Revenue (% GDP) (Prichard et al., 2014). Dependent variable: Absolute Redistribution (Gini Market-Gini Disposable) (Solt, 2009).

We follow Bentzen et al. (2013) in identifying industrialization as the point at which nonagricultural employment surpasses agricultural employment. We place the distinction of early versus late at 1950. “Late” and “early” industrialization are relative designations. For example, much has been written about France’s delayed industrialization in comparison to the United Kingdom or Germany (Allen, 2009). Similarly, Sweden is considered a late industrializer on the European continent, but certainly is not in the global perspective. On the other hand, we have designated Finland a late developer according to this schema, with its long-term success attributable to its relative uniform geography and global position. We intend for the timing of industrialization to represent important factors about the nature of the global economy, the global political system, and the characteristics of most countries that industrialized later or not at all. Thus we emphasize that the early versus late distinction is stylized. We include a list of early and late industrializing nations in Appendix 1.2.

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To analyze these links between different types of industrialization and spatial concentrations of economic and political advantage, we adopt a long-run view and analyze relationships between the patterns of industrialization, economic geography, and the state’s capacity to redistribute. We show three things.

First, natural economic endowments are highly linked to spatial inequalities in late industrializers but largely decoupled in early industrializing nations. The transformation of spatial inequalities over time diverged in early and late industrializing nations. In early industrializers, the process of industrialization and its aftermath reduced spatial inequalities. This reflects the physical and economic integration of previously peripheral areas in early industrializers into the national economy. In late industrializers, by contrast, spatial inequalities were exacerbated, making them spike beyond their already high levels. The incorporation of the periphery in late developers was in all cases incomplete, and often peripheral areas were left behind as the central cities grew more affluent and diversified. Differences in spatial inequalities persist to the present, even if these nations’ cities, through agglomeration and innovation, become drivers of development (Glaeser, 2011).

Second, we establish the connection between spatial inequalities and cross-national differences in fiscal capacity. Through a variety of political mechanisms, more skewed distributions constrained both capacity and, ultimately, the ability to curb different forms of inequality via redistributive politics. Marshalling a plethora of indicators on capacity and a large number of specifications, we show that an uneven economic geography is a strong predictor of lower levels of capacity, particularly among late industrializers. Early industrializers develop through the internal and external conquest of space. Internally, national markets are integrated via infrastructural investments. Externally, colonial expansion facilitates access to commodities and broadens the scope of markets. Crucially, the external conquest of space, via colonial rule, reinforces the spatial economic and political polarization among would-be late industrializers.

Third, capacity operates as an endogenous mechanism through which early patterns of concentration of economic and political advantage shape the ability to redistribute today. The combination of economic geography and colonial rule conditions early capacity investments. Moreover, geopolitical factors reinforce the initial divergence in capacity stocks. The competition, via interstate wars, for additional sources of commodities and demand among early industrializers further enhances the gap in fiscal state development relative to late industrializers. As a result of these processes, polities at different levels of development confront structural transformations from fundamentally divergent
capacity levels. Late industrializers face their integration into the international economy or their transition into the digital era from a much weaker position. Their ability to equalize fortunes across classes or regions is more limited, thus shaping both interpersonal and spatial inequalities in current times.

Our analysis of the relationship between geography, capacity, and inequality proceeds in two steps: Volume I focuses on the origins of spatial inequalities and their impact on capacity development. Volume II focuses on the implications these differences in capacity have for the politics of redistribution to address interpersonal and spatial inequalities. Jointly, these two volumes provide a new perspective to understand why and how differences in capacity level anchor countries’ ability to cope with rising inequalities today. Our efforts speak to several lines of research in political economy.

Through the connection between space and capacity, we revisit an old theme in comparative development going back to Gerschenkron’s (1962) idea that “in several, very important respects, the development of a backward country may, by the very virtue of its backwardness, tend to differ fundamentally from that of an advanced country” (p. 6). He pointed to the differential role of credit institutions and their relation to the state, to ideology, and to the survival of serfdom as relevant factors, among others, to understand heterogeneous trajectories in European industrialization. Here we expand the scope of his fundamental intuition to better understand how spatial differences in the way that economic geography shaped state formation determined capacity to meet rising social and economic demands. For early industrializers, concentrated mainly in Western Europe, North America, and Australia, the fundamental dilemma is how to adapt relatively strong fiscal states and public services to structural changes and growing demands. For late industrializers, concentrated mainly in Latin America, Africa, and parts of Asia, the challenge is how to cope with the growing importance of manufactures in an increasingly integrated market for consumables with much weaker fiscal states and public services. We contend that these differences in capacity are essential to understand the political economy of inequality and its dynamics across the world.

Our approach also connects with research highlighting the global division of labor as a critical barrier to economic prosperity in late industrializing nations. In dependency theory, the early industrializers set up an unfair system of exchange controlled by themselves, in which late industrializing nations supply (at exploitative prices) the lower-value inputs that fuel the higher-value finished goods produced in early industrializing nations (Cardoso and Faletto, 1979). By relegating late industrializers to providers of inputs to the industrialization process, the timing of a nation’s industrialization likely shaped the spatial distribution of economic productivity. The majority of materials exported from
the late industrializers to the early industrializers were primary commodities (whether raw or partially processed goods), which reinforced the advantage of those parts of the nation with good natural economic endowments (Haber, 2005). In this way, the global system of economic dependency exacerbated spatial inequalities in late industrializers, contributing to the political conflicts that undermine fiscal capacity development.

We speak to the literature on economic geography and developmental outcomes. We build on previous research that sees geography and institutions not as mutually exclusive explanations of developmental and distributive outcomes, but rather complements in the explanation of inequality patterns (Diamond, 2013). This literature has focused on the relationship between economic geography and various mechanisms behind the prosperity of nations: property rights (Acemoglu and Johnson, 2005; Acemoglu et al., 2001), inequality and human capital (Engerman and Sokoloff, 2002; Galor et al., 2009; Nunn, 2008; Sokoloff and Engerman, 2000), forms of production (Dell, 2010), legal traditions (Besley and Persson, 2011), and political competition (Berkowitz and Clay, 2011). Somewhat surprisingly, much less attention has been paid to the connection between geography and the strength of fiscal institutions (Boone, 2003) and how this in turn helps explain today’s patterns of inequality. In our view, a better understanding of the connection between economic geography and capacity will illuminate important mechanisms behind the structural inequalities that constrain development in the long run (Easterly, 2007). In particular, a focus on the spatial concentration of economic and political influence helps to explain why in some countries, mostly early industrializers, legal and fiscal capacity grow and reinforce each other, whereas in others, mostly late industrializers, there emerges a decoupling of the rule of law and the fiscal strength of public institutions (Besley and Persson, 2009).

We also provide a new perspective on how international and domestic factors interact to shape both capacity and inequality around the world. Recent contributions have shown major international conflicts to be an important factor behind the state’s fiscal expansion (Boix, 2015; Dincecco, 2011; Queralt, 2019; Scheve and Stasavage, 2010; Tilly, 1992). Our argument does not seek to pit domestic versus international factors in a sort of artificial (and analytically rather absurd) race. Wars, in our account, by affecting mainly early industrializers, are critical events that shape the global geography of capacity asymmetrically. They are structural breaks that work to reinforce preexisting patterns of capacity divergence. Relative to existing bellicist capacity arguments, we pay special attention to economic geography as setting the playing field. Relative to existing geography-based theories, we highlight the long-run
legacy of industrialization and its impact through changes in the composition and evolution of political elites.

Finally, by studying the conditions leading to underinvestment in capacity, we also speak to a recent literature on how different legacies of political and economic modernization shape efficiency and distributional outcomes today (Albertus and Menaldo, 2014; Kurtz, 2013; Soifer, 2015). A central idea in the pages that follow concerns the corrosive nature of inequality: some dimensions of inequality undermine the ability of democracy to control inequality itself. One of the key mechanisms in this recursive process is the consolidation of different capacity legacies over time. This, in turn, speaks to a broader debate about the contextual effects of institutional and capacity reforms (Hanson, 2014, 2015; Soifer, 2013) and in particular, to recent debates about the conditions under which democracy and inequality can coexist.

2 The Argument: Industrialization, Geography, and Capacity

The central argument of this Element is that the spatial concentration of economic (and political) power constrained the development of state capacity in many parts of the world. It did so by conditioning elites’ preferences for investments in the development of state institutions and their ability to carry these preferences through. These initial choices led to fundamental differences in capacity stocks that, in turn, anchored the way countries responded to subsequent structural transformations. In particular, initial capacity stocks shaped the size and progressivity of fiscal and public insurance systems, thus conditioning the evolution of different types of inequalities.

The link between geography and capacity is spatial in two ways. First, concentrated spatial economic endowments lead to distributive conflict, with elites from the most productive regions highly skeptical of central capacity that may be redistributed outward to peripheral regions. Second, there is a sequential hierarchy between early movers and the rest of the world. The success in building strong states in early industrializers allowed them to shape the social structure and early institutional investments in the developing world. Successes in developing capacity among early industrializers and early democratizers worked to actually constrain capacity development in late industrializers through the economic and institutional legacy of colonialism, which intensified spatial polarization across the developing world.

This polarization shaped elites’ preferences about capacity investments and their ability to overcome the very constraints imposed by skewed economic geography. It did so by shaping how different countries prioritized investments at the time of industrialization and by leading to a fundamental divergence in capacity stocks across countries. This initial divergence was further reinforced...
by the incidence of international wars and their impact on fiscal development across countries. Early movers fought, among other reasons, to expand or retain their colonial rule, to maintain a grip on areas from which to transfer resources back to the metropole. These military conflicts, in turn, led to additional expansion and consolidation of effective state institutions among the early movers. In contrast, by the time colonies become independent, interstate war was no longer a major engine of state development. The initial spatial divergence derived from colonialism was only exacerbated by the link between war and capacity development. There is a world of metropoles engaged in wars, out of which strong states emerge, and a world of colonies in which interstate wars are either largely absent, or where war was not linked to strong state development. Fiscal bureaucracies grow strong in the former, feebly in the latter.

As a result, states with different trajectories in terms of capacity development faced structural transformations on very different footings. Early industrializers, mostly metropoles with a long history of war engagement, managed the expansion of manufacturing (and the full incorporation of labor and women into democratic politics) and the subsequent transition to the service economy through the provision of public goods and large public insurance systems. Despite significant heterogeneity, they managed to slow down the growth in interpersonal inequality for several decades (Boix, 2019; Iversen and Soskice, 2019). At the same time, spatial inequalities remained relatively low, again with some significant variation across cases (to which we return in Section 5). This was primarily possible because their large and moderately progressive fiscal systems generated enough revenue to meet the cost of these responses. By contrast, the nations of the periphery managed their late incorporation into the industrial world and the international economy on much weaker grounds. Their fiscal effort is consistently much smaller and regressive, ultimately unable to significantly reduce interpersonal inequalities beyond adjustments on the margin. Moreover, spatial inequalities only grew stronger, further undermining the feasibility of redistributive efforts over time. Low-capacity legacies nurture a self-enforcing dynamic between interpersonal and spatial inequalities.

In what follows, we develop this argument in detail. We begin by presenting the core premises in our analytical framework. We characterize the decision to initiate and expand industrialization (in production and spatial terms) as a calculation made by elites focused on maximization of returns on their assets. Second, we analyze the origin of different patterns of spatial concentration and how the latter conditioned elites’ incentives and constraints in different waves of industrialization. Initial conditions are key to understanding investments and
Political Economy

account for the early divergence in capacity stocks. The section ends with a summary of the main empirical implications following from our argument.

2.1 Analytical Framework: Premises

Fiscal capacity is an investment made by elites. It reflects both their decision to fund initiatives, such as military effort or the expansion of public goods, and the availability of alternative sources of revenue, such as natural resources or cheap credit. Public goods investments imply the adoption and generalization of technological innovations and a major effort on infrastructural development for the purpose of bolstering the economic productivity of a particular sector (or set thereof).

In line with a large literature on economic and political modernization, we assume there are two types of elites: agricultural elites $A$ and capitalist elites $C$ (Beramendi et al., 2018). Each type of elite has their sector-specific production skill: rural elites specialize in agricultural production, and capitalist elites in industrial production. $y$ is the output per worker in its sector. The output per worker at the starting point for agricultural elites is $y_A$ and that of capitalist elites is $y_C$.

Agricultural elites were typically the incumbent power-holders in society in the post-industrial period (Ansell and Samuels, 2014; Boix, 2003; Justman and Gradstein, 1999; Kuznets, 1955; Moore et al., 1993). In a proto-industrialization context, incumbent elites face three sequential decisions: first, whether to invest in a higher amount of public goods that may improve economic productivity; second, how to fund these public goods; and third, where in the nation to make those investments – throughout the nation, or in one or a small number of locations with comparative advantage in economic geography.

In theory, the nature of public good investments may work in favor of either elite. The implications of new public goods for the output of agricultural elites depends on how they affect the productivity of the agricultural sector relative to the industrial one. Greater industrial production may “crowd out” agricultural production (Rostow, 1959). In this case, agricultural elites stand to lose (or at least benefit less) from new public good investments, which will increase the pace at which the economy shifts from agriculture to industry (Congleton, 2010; Kaldor, 1963). Let $\lambda$ reflect the “production cost” of crowding out to agricultural elites, where $0 < \lambda_A \leq 1$. Alternatively, new public good investments may actually enhance the overall productivity of the agricultural sector. In this case, let $\lambda_A$ reflect the increasing returns accruing to agricultural elites, where $1 < \lambda_A$. Similarly, if $0 < \lambda_C \leq 1$, investments increase the production cost function of manufacturing to the benefit of agriculture. By contrast,
if $\lambda_C > 1$, investments are generating increasing returns on the income of the rising industrial sector: the expansion of public goods investments makes each additional unit of investment generate a return higher than unity.

Regarding the organization of fiscal systems, we reason from three premises. First, we assume national and subnational borders as given. Preindustrial taxation focused on land and tariffs (Mares and Queralt, 2015). We therefore make the assumption that tariffs will directly affect the level of pretax income of both actors, and that indirect taxes (such as tariffs) fall broadly on consumers. Thus, before industrialization, the income of agricultural elites is given by $y_A - T_L$, where $T_L$ refers to taxes on land. The income of the incipient industrial elites remains $y_C$. Second, following Lindert (2004), Lizzeri and Persico (2004), Congleton (2010), Pincus and Robinson (2014), and Beramendi et al. (2018), we also assume that tax structures grow in complexity as a result of development. Taxes on land ($T_L$) or tariffs are no longer the fundamental pillars of revenue generation as fiscal structures become a more complex function of trade taxes ($T_D$), and ultimately, direct taxes on income ($T_D$), and indirect taxation (especially on consumption) ($T_I$). We define the combination of these three tax tools as $T_{RDI}$.

The expected postindustrial income for both agricultural and industrial elites is therefore given by, respectively, $Y_A = y_A - T_{RDI}$ and $Y_C = y_C - T_{RDI}$.

Accordingly, when deciding whether to undertake major public goods investments for the purpose of economic modernization and industrialization, elites face the following calculations:

- Agricultural elites will support the investment if $Y_A < Y_A^A - T_{RDI}$ and oppose it otherwise.
- Industrial elites will support the investment if $Y_C < Y_C^C - T_{RDI}$ and oppose it otherwise.
- Put differently, either elite will support investment iff:
  - $Y_A^A - y_A > T_{RDI}$ in the case of agricultural elites.
  - $Y_C^C - y_C > T_{RDI}$ in the case of industrial elites.

Figure 2 presents a summary of the possible strategies adopted by elites. Recall that if $\lambda_{A,C} \leq 1$, investments imply a relative increase in the cost of production in the given sector; by contrast, if $\lambda_{A,C} > 1$, investments trigger increasing returns and facilitate sectoral expansion.

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2 We know that borders are not strictly endogenous (Grossman and Lewis, 2014; Mazucca, 2017). This is an important area of future research at the intersection of political economy, distributive politics, and identity.
Interestingly, this simple exercise captures a direct link between the nature of the multiplier effect of income among the different sectors and the level of taxes and fiscal capacity: unless the (expected) income effects associated with industrialization are sufficiently high, elites will support neither investments nor an increase in capacity to raise revenue to finance them.

This setup does not necessarily imply that agricultural and industrial elites are perpetually isolated from and competing with one another; indeed, we document considerable overlap in these groups in both early and late industrializers. What matters to our argument is the profile of investments ultimately adopted by elites. An industry-dominated portfolio of investment, for instance, does not require preexisting rural elites to be eliminated. As the initial competition resolves into a scenario in which the economic benefits of industrialization become apparent and increasingly prevalent, we expect old and new elites to merge over time in a process of class adaptation (Piketty, 2014). What matters is that the portfolio of investments is industry dominated (Ansell and Samuels, 2014). Similarly, agricultural dominated investment may coexist with intra-elite splits among rural producers or with partial investments in industry or relationships with foreign finance, often socially cemented as well. Our focus is on the dominant sector and its link to the investment-capacity portfolio.

The next hurdle is to analyze the specific conditions under which elites pursue the strategies summarized in Figure 2 and the implications of such strategies for the politics of capacity development and its connection to spatial inequalities.

2.2 The Roots of Capacity Divergence: Space and Industrialization

What governs the circumstances elites face when confronted with the choice of what and where to invest (i.e., the balance between $\lambda_A$ and $\lambda_C$)? Part of the