

Why the Economy Reflects the Polity:
Early Rail Policy in Britain, France, and the United States

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INTRODUCTION

Where do national economic institutions come from? In The Wealth of Nations, Adam Smith (1970 [1776]) proposed that nations discover how to fashion economic institutions by trial and error. They learn lessons from those institutions that fail as well as from those that succeed, and thus divine the laws that structure our economic universe. Economics proceeds much like physics in this regard, and there is no escaping nature's laws in either realm. Smith's view is very close to that of modern common sense (Geertz 1983). We think of economic institutions such as markets and national industrial policies as being constrained by laws that define what is efficient. Where inefficient structures arise by bad luck of human meddling, they are bound to suffocate under their own weight. Those that survive must, ergo, conform with economic laws. As these laws are invariable, they will cause national institutions to converge.

Two things suggest that common sense may be wrong-headed here. First, radical differences in national economic institutions persist. Second, several very different systems appear to be about equally effective. It may be that there are institutional prerequisites for economic growth, but that they are much broader than we think they are. Perhaps growth only requires some sort of system that allows profit-taking, some means of raising capital, and norms that favor greed. It may be that the economic laws we detect when we observe the world around us are simply fictions we invent to give order to that world – just as the spirits that the Ndembu detect are fictions that give order to their world.

The history of national industrial strategies appears to belie Adam Smith's view. If Smith were right, nations' strategies should have come to look more and more alike. At any point in recent history nations' strategies have indeed appeared to be converging, because nations have jumped on one bandwagon after another – public coordination inspired by the French Miracle of the 1950s (Shonfield 1965), industrial policy inspired by the Asian Miracle of the 1970s (Graham 1991), and neoliberalism inspired by America's New Economy of the 1990s (Sachs 1989; McNamara 1997; Campbell 1998). Yet in the long run, these bandwagons have had modest effects. Think of how France and Britain have dealt with industry over the past several centuries. It is impossible not to detect a penchant for central, expert, administration of vital industries on the one hand and a belief in "chaque seigneur souverain dans sa seigneurie" on the other. Fads in policy have come and gone, but France and Britain have sustained their basic approaches. And while their approaches are entirely different, both have succeeded beyond the wildest dreams of Adam Smith's contemporaries.

Sociologists have generally read this variance in economic systems very differently from Adam Smith, who perceived nations as being at different points on the road to perfection. Berger and Luckmann (1965), for instance, do not describe modern societies as fundamentally different from pre-modern ones. In both kinds of societies, Weber argued, the goal of social science should be to understand the "subjective meaning" individuals attach to behavior and institutions (1978, p. 4). To understand whether they see their behavior as driven by the will of a particular God, or by the laws of a particular economics. Social constructionists (e.g., Meyer and Rowan 1977) have built on this point, emphasizing that the modern search for meaning is oriented not to the imagination of an unseen world of spirits or an all-powerful god, but to the imagination of an ineluctable set of physical and social laws.

When scholars observe pre-modern societies, they instinctively treat the core meaning systems as a local invention that can be explained by history and happenstance. Yet when they observe their own society, they tend to treat the meaning system as an accurate depiction of the

universe. They find it difficult to accept the idea that their understanding of the world will, in the fullness of time, prove as ephemeral as that of the Ndembu (or as the ideas of quantum mechanics, before superstring theory). They describe antitrust law, for instance, as reinforcing nature's invariable laws of competition, and have trouble envisioning both antitrust and the imagined laws of competition as cultural inventions. They presume that there is nothing to interpret or understand here, in Weber's sense. But, of course, the clerics did not see their God as part of a belief system, they saw him as the one true savior. The Trobriand Islanders do not see their spiritual realm as a meaning system, they see it as reality.

In the modern world, the taken-for-granted beliefs that underlie rational behavior are at the core of the meaning system (Geertz 1983; Douglas 1986). The source of economic ideas should thus have pride of place in cultural sociology, as well as in economic sociology. Instead, we treat economic ideas as simple and unproblematic reflections of the invariable laws of nature. Whereas sociologists of science have made great strides toward developing a cultural view of scientific knowledge, economic sociologists have made less progress (but see Yonay 1998).

All rational social systems are oriented to apprehending the natural laws that govern the universe – physical, biological, and economic laws alike. Yet just as religious systems may be organized around different gods, rational systems may be organized around different economic and social laws. Particular religious communities -- with the possible exception of Unitarians -- deny the existence of others' gods just as particular rational communities deny the existence of others' economic laws. In this chapter, as in the book it reprises (Dobbin 1994), my goal is to trace three very different national industrial orders, and the ideas that underlie them, to differences in national polities at the dawn of the industrial age. My contention is that the institutionalized principles of political order found in these nations were applied to industry during the nineteenth century. Thus the economy came to reflect the polity.

THREE POLITICAL SYSTEMS BEGET THREE INDUSTRIAL LOGICS

At the dawn of the industrial age, national political institutions carried distinct logics of social order. During the nineteenth century nations used these logics to shape the emerging industrial order. In other words, sovereignty was located in competing communities under a weak federal superstructure (in the U.S.), in a strong central state that coordinated private life (in France), or in a series of autonomous individuals with representation in Parliament (in Britain). The principle of political order found in each system was translated into a principle of industrial order during the nineteenth century.

This is not to say that industrial policies were over-determined by political institutions. In fact, America's first model of industrialization, based on municipal leadership, failed and was replaced by a model based on federal supervision of industrial competition. But political institutions did shape the industrial policy approaches citizens could imagine in each country.

I trace the broad industrial policy approach each country adopted between 1825 and 1900, focusing on rail policy. Students of politics and history have linked many of the particular policy decisions to particular political interests. I cannot possibly tackle each of these arguments. Instead, I endeavor to show that across a very long period and a very wide set of policy arenas, each country shows a pattern of applying the logic of its polity to its emerging economy. Political power often influenced which of the competing proposals would win, but the logic underlying political institutions limited citizens' imaginations and thereby constrained the proposals that reached policymakers.

In consequence, each country developed institutions for organizing economic life that paralleled those they used for organizing political life. The American polity located sovereignty in a series of autonomous regional governments under a weak federal state that served as referee. Industrial policy situated economic sovereignty at first in community governments, which practiced active stewardship of growth, and later in a market refereed by the federal government.

The French polity located sovereignty in the central state, as the only force that could orchestrate political order and hold the nation together. Industrial policy likewise located economic sovereignty in the central state, under a parallel logic that only orchestration from the center could produce economic order and further the nation's material goals.

The British polity located sovereignty in elite individuals by protecting them from their neighbors, the Crown, and the state bureaucracy. Industrial policy sought to locate economic sovereignty in individual firms at first through laissez faire, and later through active protection against the intrusion of market and political forces.

Thus were born three different approaches to industrial policy; the first came to be centered on market mechanisms, the second came to emphasize the rationalizing force of central coordination, and the third came to focus on the protection of individual entrepreneurs. Most analysts have taken the parallels I depict between political culture and industrial culture for granted, using terms like "American exceptionalism" or "French étatism" to refer to the two in the same breath. I contend that these parallels contain the secret to cross-national policy variation. Different conceptions of industrial efficiency originated in the traditions of political life, and those conceptions have proven remarkably resilient over the past hundred years. They are resilient, in part, because they resonate with the political order.

Next I take each country in turn, showing how its principles of political order were applied to the emerging industrial order. For each country, I chart policies addressing planning and finance, technical coordination, and competition. In this, the first modern industry, these three countries pursued persistently different approaches to promotion and regulation over a period of 75 years. Their political institutions so palpably shaped how these nations thought about industrial order that in most realms, these countries did not even consider the same policies.

THE UNITED STATES: THE RISE OF THE MARKET MODEL

American governments conceived two, successive, models of industrial governance in the railway age. In the phase of "rivalistic mercantilism", local governments actively planned and financed railroads. This approach brought, to the economy, the political model of community self-rule, but after fifty years it was brought down by graft. In the phase of antitrust, the federal government refereed competition among firms. This approach brought, to the economy, the political model of the federal government as referee among states and citizens. Each of these approaches to organizing the economy was fashioned after a particular feature of the polity. The second became the neoliberal prototype.

Antecedents of the Market Model: American Political Institutions

When the colonies of the New World fashioned a national government of their own at the end of the eighteenth century they included safeguards against the despotism they had known under the British. The Constitution maximized the independence of the existing communities and states that comprised the new nation. The federal government existed only to guard those communities: "The form of the Federal government was the last to be adopted; and is in fact nothing more than a summary of those republican principles which were current in the whole

community before it existed, and independently of its existence" (Tocqueville 1945, p. 61). The subnational governments had not only greater authority than Congress, but greater total fiscal capacities (Hartz 1948; Callender 1902; Handlin and Handlin 1947). The federal state was to protect communities from invasion, and also to referee conflicts among states and citizens through a uniquely powerful judiciary.

The new Constitution preserved the autonomy of towns and states, allocating scant authority to the federal state. The federal judiciary was more powerful than any in Europe, for a key federal role was to resolve conflicts. The tripartite federal structure ensured that power would not accumulate in any one office of government (Lipset 1963; Skowronek 1982). The separation of governmental powers and the checks and balances built into the Constitution afforded the judiciary unparalleled discretion, and contained the executive and legislative branches.

These institutions offered a particular vision of democratic political order. They symbolized community self-governance as the foundation of democratic politics, by affording communities wide-ranging authority to establish and pursue goals as they saw fit, but they depicted the central state as potentially tyrannical, by severely constraining Washington's authority (Rostow 1959, p. 43). The federal government was to field an army, to rebuff invaders, but its main domestic role was to referee conflicts among the states and citizens. Its crown jewel was not the presidency but the judiciary.

Birth of the Market Model: American Rail Policy

These two elements of America's polity -- activist state and local governments and a passive federal state that secured community self-governance -- were reflected sequentially in her industrial policies. America's first industrial policies involved active state and local promotion of economic growth. Later policies involved passive federal structures for securing the self-determination of free economic actors.

Planning and Finance

When town meetings voted bonds and subsidies for banks, factories, and railroads, they extended the political principle of community self-determination to the economic realm. What emerged during the middle decades of the nineteenth century was a form of "rivalistic" state and local "mercantilism," in which regional governments competed to win commerce, industry, and transport facilities (Schieber 1981, p. 131). In 1853, Pennsylvania's Chief Justice declared that states had a duty to promote growth;

It is a grave error to suppose that the duty of the state stops with the establishment of those institutions which are necessary to the existence of government... To aid, encourage, and stimulate commerce, domestic and foreign, is a duty of the sovereign as plain and as universally recognized as any other. (quoted in Hartz 1948, p. 304)

State and local governments provided massive direct aid to private railroads in order to influence their route decisions. By aiding particular railroads, states and localities in effect made most route decisions. Local boosterism for railway aid seemed to be contagious. As one community schemed to attract a railroad the inhabitants of neighboring villages quickly assembled and plotted to win depots for themselves (Fisher 1947). Municipalities in 29 states invested in railway companies; in New York alone some 300 towns voted aid (Goodrich 1960, p. 237). Before the Civil War, state governments allotted \$300,000,000 in cash and credit to transportation development -- primarily to railroads -- and local and county governments allotted more than \$125,000,000. By 1861 states and localities had provided thirty percent of the total capital invested in railways. Between 1861 and 1890, state aid amounted to \$95,000,000, and

local aid exceeded \$175,000,000 (Goodrich 1960, p. 268-270). By most accounts, states and localities provided half of the capital invested in early American railways. As late as 1871 Massachusetts' Railroad Commissioners argued: "It now seems to be generally conceded that some provision for the construction of a certain amount of railroad facilities is, in this country at any rate, a matter of public charge" (1871, p. viii).

This enthusiasm for public funding was not matched by enthusiasm for public regulation. State and local governments were soon overwhelmed by the task of overseeing their investments. As Andrew Shonfield concludes: "while the state governments embarked on public enterprise and public regulation of industry with a vigour that is reminiscent of the traditional French approach to economic policy, they entirely failed to equip themselves with a core of professional administrators of French quality" (1965, p. 305). By the early 1870s, corruption had become widespread. Over a dozen states passed constitutional amendments forbidding public aid to private enterprise.

Thus America's early form of decentralized state activism, which proponents hailed as the model for the modern economy, gave way not because Americans abandoned their belief in local self-determination in matters economic, but because regional governments did not employ professionals who could preclude graft. Americans gave up the vision of government leadership in the economy several decades before the institution of a professional civil service spread (Tolbert and Zucker 1983).

Congress followed the lead of state and local governments in promoting a handful of rail lines, and the history of federal promotion follows a parallel pattern. Elected officials in Washington made the case that whereas communities could act for the local interest, only Congress could act for the national interest in promoting trans-continental railroads. But land grant scandals led Congress to forswear future aid to railroads by the early 1870s (Cleveland and Powell 1909).

In America it was state and local governments that organized financing and planned routes for early railroads in part because it was those regional governments and not Washington that held the lion's share of public authority. But they did so, as well, because they believed that the principle of regional political self-determination extended to economic self-determination. At the very dawn of the railway age, this was how Americans thought about state and industry. In 1828, the governor of Massachusetts argued for public promotion of railroading: "Here then is a measure of encouragement to domestic industry within our own control -- a system of internal improvement, opposed to no constitutional scruples, of which no interest can complain, and by which all interests will be promoted" (Massachusetts, General Court of 1828, pp. 25-26). The common interest would, in the minds of Americans, be best served by each state and locality underwriting the railroads, banks, canals, and factories it desired.

Meanwhile, the French precluded regional governments from playing any role in private rail planning, arguing that they could only disrupt the central state's expert plan, and the British government guarded railroads from any public influence at all, in the belief that private entrepreneurs alone could choose routes that served the public interest.

Technical Coordination

Railroading demanded unprecedented technical and managerial coordination. Who would ensure gauge conformity? Who would schedule trains to allow connections? Who would choose standards for signaling and brakes? Alfred Chandler (1977) argues that it was these demands for coordination, both within and among railroads, that generated America's managerial revolution in the late nineteenth century. The fact that these tasks were taken over by states in

much of Europe may explain why private managerialism blossomed in the U.S. while its public counterpart was blossoming across the Atlantic.

The American political principle that the state should not interfere in the affairs of private citizens was taken to an extreme in this case. The Constitution constrained the federal government from meddling in the private affairs of citizens and from usurping the powers of state and local governments. State constitutions contained parallel provisions, checking the authority of government to intervene in private affairs. In railroading, Americans believed that public funding simply expressed the economic will of the community, but that regulation quickly shaded into tyranny. Governments at all levels steadfastly refused to help coordinate railroad operations or to set safety standards.

By closely constraining the powers of the federal government, the Constitution had suggested to Americans that civil society was self-regulating – needing no tutelage from above. This was their model for rail regulation. In 1872 the Massachusetts Commissioners of Railroads argued that the tyranny of regulation was not needed: "[A]n enlightened public opinion making itself felt by means of discussion and popular agitation" (1872, p. clxx) was all that was needed to regulate the railroads.

When it came to defining a common gauge, so that trains could continue on their journey from one line to the next, Americans insisted that government stay out of the matter – even when government funds were at work. Meanwhile, governments around the world, with the notable exception of Britain, had stipulated gauge standards to ensure compatibility. As late as 1861, half of U.S. trackage was in some gauge other than the popular 4' 8.5" width (Westbay 1934, p. 32). At the end of the 1860s, when most of the main trunk lines had been laid, American railroads still used twelve different gauges (Poor 1871). It was not until 1886 that a private organization successfully promoted a switch to the 4' 8.5" gauge (Moody 1938).

Safety followed a similar pattern. While analysts argued that a signal standardization and mandatory brakes would prevent the loss of life, legislators insisted that civil society should be self-regulating – that states should not dictate to railroads. It was not until 1884 that a private group promoted a signaling standard and universal adoption of modern brakes (Dunlavy 1993). This was not particularly successful, but Americans were reluctant to admit that self-regulation was not working. In 1893, some two decades after private rail associations had taken up the cause of safety devices, Harrison signed the Railroad Safety Appliance Act requiring the use of brakes and automatic couplers (Haney 1910).

Thus in the realm of technical coordination as well, Americans applied the logic of their polity. America's regional governments were eager to back railroads as part of their right of self-determination, but they were loath to regulate railroads for fear of practicing tyranny over self-regulating civil society. Public aid that was welcomed by railroads did not smack of tyranny in the way that regulation that was not welcomed did. Meanwhile, French state technocrats were regulating France's private railroads in minute detail, in the belief that only the state could orchestrate private interests just as only the state had been able to coordinate the nation's military and political subunits.

Competition Policy

When state and federal governments rejected the role of industrial financier, they had no model of state-industry relations to fall back on. The economist Henry Carter Adams wrote in 1886: "the present generation is without principles adequate for the guidance of public affairs. We are now passing through a period of interregnum in the authoritative control of economic and governmental principles" (1954, p. 66). It was not only that the idea of public promotion was

tarnished, but that the federal government soon outlawed rail cartels. Cartels had been railroads' means of regulating competition, and they were viewed on both sides of the Atlantic as the way of the industrial future. How would America's economy be organized without either public promotion or the cartel? Based on the model of the federal relationship with the states, Americans fashioned an industrial policy alternative to "rivalistic" state and local "mercantilism" and to the cartel. The federal government would be industrial referee among firms, just as it had been political referee among states and citizens.

Congress outlawed the cartel because it raised the specter of tyranny. The Constitution symbolized concentrated public power as tyrannical, and when Americans saw powerful cartels they thought they saw private tyranny incarnate. An organization of farmers and ranchers from the West argued that Washington should abolish cartels, claiming that they exercised baronial power. In the words of Senator Sherman: "If we will not endure a king as political power we should not endure a king over the production, transportation, and sale of any necessities of life. If we would not submit to an emperor we should not submit to an autocrat of trade" (quoted in Eisner 1991:49).

The Sherman Antitrust Act, governing industry generally, and the Interstate Commerce Act, governing railroading, were to prevent collusion and the "restraint of trade". In the language of congressional debates on the acts, trusts and cartels threatened the economic liberties of small railroads, farmers, shippers, and manufacturers. They seemed unnatural -- "mysterious mutations, the consequences of some evil tampering with the natural order of things. They were not merely economic freaks but also sinister new political forces -- powers that had to be opposed in the name of American democracy" (McCraw 1984, p. 77). They represented the sort of concentrated authority that the Constitution was designed to prevent.

At the end of the 1880s, Congress envisioned a new federal economic role that mirrored the federal political role in refereeing disputes among states and citizens. They established a regulatory system modeled on the judiciary. The Act to Regulate Interstate Commerce of 1887 established the Interstate Commerce Commission (ICC) to oversee several new restrictions on railway practices. The legislation's main substantive effect was to prohibit cartels. Its administrative structure was quasi-judicial: it was a sort of court.

The law did not transform railroading into a small-holding industry, for it did not outlaw mergers among cartel participants that created monopolies with the intent of restraining trade (Fligstein 1990, p. 35). In the end, the Act encouraged the creation of large integrated firms in the railway sector just as the Sherman Antitrust Act did in other sectors (Roy 1997; Hollingsworth 1991, p. 41). Industry leaders soon encouraged amicable mergers in place of pools, such that railroads that faced intense competition would agree to merge with their peers (Dobbin and Dowd forthcoming).

Antitrust built on the traditional strength of the federal courts as referee among the states and among private parties. Under antitrust, the federal government would not direct the economy, but it would guarantee free market participation and would arbitrate disputes among private players.

Antitrust has since been depicted as the inevitable result of rising competition. But it was not at all seen in this light at the time. Railroads had argued for just the opposite: "a universal pool ... and ... the enforcement of its provisions by law" (U.S. Congressional Record, Session 49, 1886, p. 7282). Europeans saw antitrust's encouragement of competition as wrong-headed: "In England, Germany, France, and Austria, the limitations of competition were recognized in the deliberations accompanying the granting of the first [railway] charters" (Meyer 1903, p. 21).

While railroads themselves opposed anti-cartel legislation and while experts viewed the approach as "demonstrably irrational" (Skowronek 1982, p. 130) in an industry that was naturally monopolistic, American legislators could not accept the idea that the industry would inevitably operate as a monopoly. It smacked of aristocracy.

The French, by contrast, took the railway industry to be naturally monopolistic from the start. Their solutions – state-organized private monopolies, public rate-setting, and close civil-servant oversight of operations – were not even imaginable in the American context. The British believed, first and foremost, in the rights of the firm. Their solution – state-orchestrated cartels to shield weak firms from competition – was just as unimaginable in the American context. Nowhere were private trusts and cartels perceived as a threat to economic liberty as they were in the United States -- at the turn of the century most European courts were still enforcing cartels (Cornish 1979).

The model of order contained in the American political system was based on two fundamental principles: that communities should be self-governing and that the central state's domestic role was to deliver the mail and referee disputes. At the dawn of the railway age, America's regional governments turned the principle of self-determination into a prescription for industrialization. State and local governments actively choose rail routes and financed private entrepreneurs. Graft brought this to an end, and in the adolescence of railroading the federal government extended its role as political referee to industry. America's Constitution, which carefully hedged the power of the central state, led her citizens to perceive the concentration of private power as illicit and to conceive solutions that made the federal government into a neutral arbiter. In each period, Americans extended the logic of the polity to the economy. Yet America's unique solutions become clear only when contrasted with the solutions of her peers across the Atlantic.

FRANCE: THE RISE OF THE DIRIGISTE MODEL

What was most remarkable about French railway policy during the age of revolution was its constancy. During the industry's infancy France was in one moment a monarchy, in the next a republic, and in the next an empire. Nonetheless, France pursued a consistent strategy for promoting and controlling the railways that launched the transition from Colbertian mercantilism to modern industrial dirigisme. The unique contribution of the American case was to illustrate that while national industrial strategies are shaped by political culture, they need not be static. America shifted from local government entrepreneurship to federal market enforcement. The unique contribution of the French case is to illustrate that political culture is not simply a reflection of political ideals. France pursued central coordination of industry under monarchy and democracy alike, for the centralized bureaucracy of the old regime proved compatible with both. Yet the French institutions of democracy were the polar opposite of those found in the U.S.

Antecedents of the Dirigiste Model: French State Institutions

In France, as in the United States, the logic of the political order was carried to the emergent industrial order. Absolutism had been vital to France's integrity, for it enabled the crown to bind the fiefdoms at France's perimeter to Paris. Absolutism carried the idea that the central state must hold the nation together, forcing maverick seigneurs to act in the nation's interest. This same logic of public tutelage infused policies to promote the railways. In vital industries, the French believed, expert bureaucrats alone could direct private parties to pursue the public interest (Hayward 1986, p. 19). Mavericks menaced the nation's industries. By contrast,

Americans believed that maverick entrepreneurs were the wellspring of progress and that the public interest would take care of itself if private parties were guaranteed liberty.

French absolutism has been traced to the requisites of unifying a culturally diverse territory without natural geographic boundaries to the east and south. Absolutism entailed a pyramidal bureaucracy, centrally appointed provincial administrators, a standing army under the control of the crown, national taxation, and a civil code in the Roman tradition (Anderson 1974, p. 17). This system evolved gradually. The ancien régime ended the principle of local seigneurial autonomy -- chaque seigneur souverain dans sa seigneurie -- by posting officials who took over the duties of local seigneurs (Machin 1977). Political powers were thus concentrated in the central state. As Stanley Hoffmann argues: "The need for authority had been inculcated by the Old Regime, whose patient destruction of autonomous sources of power had tended to make all groups dependent on the state" (1963, p. 10). Napoleon's system of civil law made the newly minted formal legal code, and not tradition, supreme. The civil code was not subject to judicial interpretation, and thus the courts were weak and the administration strong (Merryman 1969, p. 3). French monarchs developed a modern civil service that was unparalleled in Europe – part of that system was the Corps des Ponts et Chaussées, which would take charge of rail development (Weiss 1982, p. 11). Centralized taxation gave Paris substantial fiscal control, and ministers since the time Louis XIV had used that power to promote highways, canals, and projects of public importance (Zeldin 1977, p. 1044; Tocqueville 1955, p. 41; Shonfield 1965, p. 77). The regional governments had no meaningful autonomy.

France's state institutions were, even under democracy, the polar opposite of those found in the United States. Whereas American institutions fettered the central state and distributed democratic sovereignty far and wide, French institutions fettered regional governments and concentrated sovereignty in the Parisian bureaucracy. Authority in American was centrifugal; authority in France was centripetal.

This system symbolized the concentration of authority in the sovereign state as the means to political order. The changing character of the political regime, between monarchist and democratic, did not alter the vision of order. To monarchists, strong civil groups carried the risk of revolution from below. To republicans, strong civil groups carried the risk of revolution from above – from the aristocracy. Whereas the Americans believed decentralized power to be the foundation of democracy, the French believed just the opposite. It was thus that "the Napoleonic theory of the supremacy of the state was found to be perfectly compatible with the theory of democracy. The state was supreme because it was the representative of the people" (Suleiman 1974, p. 22).

Rise of the Dirigiste Model: French Rail Policy

In the emergent French vision of state-industry relations, the state held capitalists in tutelage to ensure that they acted in the economic interest of the nation. The French thereby brought their political principles to the realm of industry. Their theory of political order became, as well, a theory of industrial progress. France's mercantilist tradition, exemplified by the ambitious projects of Colbert under Louis XIV, had inaugurated dirigisme (Shonfield 1965, p. 72; Hall 1986, p. 177). The extension of mercantilist principles to the modern economy made perfect sense, for the old regime's economic goal -- of enriching the monarchy by stimulating the economy – coincided with the project of the modern state -- of achieving progress by stimulating the economy.

Planning and Finance

From the moment when they appreciated the potential of railroads, Parlement asked itself how it could orchestrate rail development without shouldering the entire cost. The treasury was still paying for France's ambitious canals. As the state's coffers were empty, Parlement had no choice but to use private companies to build the railroads. But deputies could not imagine letting private parties plan the lines – doing so, they argued, simply would not work. The result would be a haphazard set of lines that did not form a network.

French politicians and officials described transport as a domain too important to leave to the whims of private entrepreneurs. As the preeminent analyst of early rail debates in France argues: "The construction of all major means of transport was analyzed as a right of sovereignty of the state, which had, on the other hand, a duty to assure the profit of the collectivity" (Adam 1972, p. 29). As one member of the first railway commission argued:

My opinion ... is based on the fundamental principle underlying the great success of France ... We regard (great transportation lines) as inalienable public property of the State. And in France the State is charged with making the routes that unite the extremities of the kingdom. (quoted in Adam 1972, p. 29)

The state's highway planners from the Corps des Ponts et Chaussées thus claimed the right to plan the nation's routes and oversee their construction, rebuffing all efforts by private parties to plan the routes they would finance. In the 1820s and early 1830s, public engineers drew up plans for half a dozen important lines, advertising to attract private operators. They summarily rejected dozens of applications from groups that had planned lines themselves (Villedieu 1903). From 1833, Parlement gave sole responsibility for planning lines to the Corps, denying private railroaders, local governments, and even its own members any say in route decisions. The idea was that the state's professional engineers should proceed unperturbed by petty and regional concerns. Thus in asking for funds to plan a national rail network in 1833, Minister of Public Works Adolphe Thiers argued:

a crowd of capitalists directs their investments sometimes in one direction, sometimes in another, without any master plan. In this way, no coherent rail system would be developed that could serve the country in the main directions. We want to help you to remedy this situation ... the Government ... could study the routes, estimate the expenses and revenues, do preliminary surveys; with a national plan in mind it could direct the efforts of capitalists in order to prepare continuous and dependable transportation for the nation. (France, *Moniteur Universel* 1833, v. 86, n. 120, p. 1206).

It literally did not occur to the French to have the major rail routes planned by private firms. As the Saint-Simonien Henri Fournel argued of French railway planning, in 1838:

Noteworthy fact! The day when the idea of setting up a railroad system in France was sufficiently mature for preliminary steps to be taken for its execution, not only did no one question the intervention of the Government, which had the honor of the initiative, but no one proposed that one or several companies should undertake the studies: by unanimous consent it pertained to the state alone to stand aloof from local preferences to consider solely the general interest. (quoted in Lefranc 1930, p. 321)

Whereas the American idea was that locals should make route decisions, the French idea was that locals should have no say at all. Just when Americans were arguing that local planning and promotion would produce the best rail network, the French argued that only central planning

could possibly produce a functioning system. Reorganizations in 1852, 1859, and 1883 changed the terms of the public-private partnership, but they did not alter the principle of public leadership.

While the lion's share of capital for railroads came from the private sector, the French never gave up the idea that great transport routes were an inalienable part of the public domain. Thus they stipulated in rail charters that lines would 'revert' to the state after 99 years. When a railroad failed in France, the state took it over – arguing that just as it would have been irrational to allow local and private interests to plan the railroads, it would be to allow markets to destroy them.

In railroad planning the French followed the principles embedded in the system of absolutism. The core idea of absolutism was that political order could only be maintained by central political planning and control. This was also the idea at the core of France's system of rail planning: industrial order could only be achieved by central planning. Local and private interests would inevitably pursue regional preferences that, summed together, would never produce an orderly rail system. Likewise under absolutism, the idea was that if the regions acted autonomously the kingdom would inevitably unravel. The French saw central, expert coordination as the only way to build a modern industry.

Technical Coordination

The French likewise brought the principles of absolutism to the task of technical coordination. They saw free private management as potentially irrational. In the early debates and ordinances, they described government orchestration of the industry as the key to order. The railway network was one huge, complex, machine that could only operate effectively through careful coordination. Parliament thus gave state technocrats a free hand in directing rail operations. Railroaders themselves saw the wisdom in state control, and while they sometimes complained that they were not their own masters, they just as often hailed the wisdom of the state's engineers.

Thanks to the intervention of the state's engineers, France never saw the problems of gauge and signaling conformity. In 1823, the state's highway engineers drafted a royal ordinance authorizing six partners to build France's first railroad, to carry coal from the mines at St. Étienne to the Loire river at Andrézieux. At the turn of the century the German historian Richard von Kaufmann said of France's first railway charter: "This first official document contained the outline of future railroad regulation in France" (Kaufmann 1900, p. 2). The charter gave the Corps power over the exact route, the rates to be charged, and the procedures for handling and transporting goods (France, *Bulletin des Lois* 1823, 7th ser., v. 16, n. 591, p. 197). The Corps continued to exercise exacting control over every aspect of rail management. In 1857 the administration adopted 70 standard articles to be appended to every rail charter, detailing everything from rates to gauge to locomotive specifications (Kaufmann 1900, p. 407). Nothing was left to chance, or private initiative. As early as 1841, a former préfet argued that the state's engineers had usurped the duties of capitalists: "The engineers in France aren't only agents of execution, they are also the directors or judges of execution ... they present themselves as intermediaries between the state and true capitalists ... [who must] submit themselves with difficulty to the role of passive cashiers" in the pursuit of the engineers' plans (quoted in Leclercq 1987, pp. 70-71).

Gauge and signaling thus had entirely different histories in France than they did in the United States. In France, state engineers argued that gauge decisions, which affected whether

trains could continue from one line to the next, could not be left to the vagaries of private decision-making. They dictated a gauge of 1.44 meters at the dawn of the industry.

By the early 1850s, state engineers set signaling standards for the nation's half-dozen wedge-shaped regional monopolies. The Minister established a Code des signaux that would "unify the language of the optical signals and acoustical exchanges between agents on the trains and agents on the ground or in the stations" (quoted in Picard, 1918, v. III, p. 265). In 1885, the Corps wrote out uniform national standards in a code comprising 34 separate articles.

The French saw a problem with allowing private parties and market mechanisms to make key technical and managerial decisions for the railway industry. Private control over gauge decisions would lead to a system of disarticulated lines. Private control over safety matters could never guarantee passenger security, because railroads would sacrifice safety to profits. Thus the logic of absolutism, under which far-flung fiefdoms could not be allowed to behave as they pleased for fear that they would not serve the Crown (and would defect), was carried to the industrial realm. In railroading and in other key industries, the idea emerged that private parties could not be allowed to behave as they pleased. A crowd of capitalists, each acting in his own interest, would not serve the nation. Expert coordination was the key to an orderly economy just as it had been key to an orderly polity. Such exacting state control of industry was unimaginable in the American context.

Competition Policy

The master logic of French policy is best seen in competition policy. Progress depended on experts directing capitalists toward national goals. French officials did not see freedom to enter the market or freedom to set rates as important components of economic liberty or of efficiency. Nor did they see market competition as a prerequisite to efficiency in the industry. Throughout the century we find arguments that public officials can best orchestrate the actions of private entrepreneurs toward growth. How could unthinking markets decide that one rail route or another was vital to the nation's long-term prosperity? How could selfish entrepreneurs be permitted to decide how much to charge for rail services? In railroading as in other industries the French deemed vital, the idea was that market competition could disrupt the best-laid plans of the nation's experts.

The state's first strategy for controlling rates was to write them into charters in perpetuity. The Montbrison-Montrond railroad, for instance, could not charge more than "15 centimes per thousand kilograms of merchandise, and per thousand meters of distance" (France, *Moniteur Universel* 1833, v. 86, n. 51, p. 255). In 1857, the Corps decreed a national rate schedule based on distance (Doukas 1945, p. 23). The Corps' national route plan had precluded competition, by establishing a set of six main lines fanning out from Paris, each with its own tributaries. Thus railroads faced no real potential for competition.

In forcing the consolidation of private railroads into regional monopolies, in 1851, France took two steps that were telling of the difference between the French and American perspectives on industry (Caron 1973, p. 75). First, the French state dictated that 28 private companies would become six, exercising a measure of control over firms that would have been difficult to imagine in the United States. Second, the state reorganized the industry into non-competing wedge-shaped monopolies, thereby eliminating all possibility of competition. Coordination, not competition, was to be the foundation of this, the most modern of industries. In America, by contrast, Congress in 1887 passed the Interstate Commerce Act to enforce competition, which was seen as the prime regulatory force in the industry and, soon enough, the source of its dynamism.

Thus the French saw the concentration of control over the industry not as a threat to liberty and efficiency, as did the Americans, but as the industry's best chance to attain order and to grow. The French saw competition among scores of different railroads not as a source of economic dynamism, as did the Americans, but as a source of chaos. In competition policy, the French brought the principles of absolutism to bear on the emerging industrial economy. Coordination from the center was the key. While France would not pursue this approach to each and every industry, her policymakers continue to pursue it for industries they see as vital to the economy. Some industries can be permitted latitude, but not the likes of transportation or telecommunications, automobiles or electronics.

BRITAIN: THE RISE OF THE ENTREPRENEURIAL MODEL

The British understood their own precocious industrialization to be a consequence of the state's having left industry to its own devices. "Classical economics, which was largely a British invention, converted the British experience -- or rather what the British hoped would eventually emerge from the trend which they had detected in their own story -- into something very like the Platonic idea of capitalism" (Shonfield 1965, p. 71). David Ricardo depicted a perfect market with innumerable buyers and sellers -- no one of them strong enough to impose his will on the others and no public authority strong enough to meddle in the affairs of these actors. This ideal market was, in fact, little more than a reflection of how the British described their polity.

Britain's feudal institutions had located political sovereignty in the individual lords whose fiefdoms made up the kingdom. The state was organized to protect those lords against more powerful actors; to wit, the Crown and competing lords. It is widely argued that during the nineteenth century, this principle was translated into a theory of democracy. It was, as well, translated into a notion of industrial order. What had begun as a political precept -- the supremacy of subject and citizen -- came to be a precept of economic life -- the supremacy of entrepreneur and firm.

With the case of Britain we see that national industrial logics cannot be arrayed neatly on a continuum from anti-statist to statist. Britain's industrial policy approach was anti-statist, but it differed dramatically from that of the United States. Whereas Americans developed industrial policies to protect markets, sacrificing individual entrepreneurs in the process, the British developed policies to protect entrepreneurs, sacrificing markets in the process. Over the course of the century, the British state moved from a position of industrial laissez faire to a position of protecting the sovereign firms, and citizens, that were the foundation of the economy and polity respectively.

Antecedents of the Entrepreneurial Model: British State Institutions

French monarchs had employed absolutism to unify a kingdom with unstable borders. England had the advantage of a natural moat to prevent distant lords from defecting, and in consequence a decentralized form of feudalism endured (Hintze 1975). Whereas France's bureaucracy came to dominate the aristocracy, England's system of "parcellized sovereignties" sustained the power of the landed class (Anderson 1974, p. 19). At the core of the polity was a weak Crown surrounded by a strong "committee of landlords"; Parliament (Moore 1966). Democratization did not entail a revolution, but a gradual extension of the traditional rights of lords.

Britain's state was centralized, but weak (Bagehot 1928 [1867], p. 9). It was run less by the Crown than by Parliament -- a group of landlords intent on preserving the autonomy of the aristocracy. The common law tradition fettered Parliament, and courts and administration alike

were run not by professionals but by volunteers from the gentry – rank amateurs by French standards (Anderson 1974; Francis 1851, v. 1, p. 35). The central state had few sources of revenue (Gerschenkron 1962). Thus while the British state was more centralized than the American, it lacked the administrative and fiscal powers of the French state.

British feudalism left behind a distinct modern political culture. Sovereignty resided in neither self-governing communities nor a central power, but in individuals. That "committee of landlords" called Parliament was the government's foundation. Since the seventeenth century, England had been governed on the principle that individuals collectively held sovereignty even over the king.

Birth of the Entrepreneurial Model: British Rail Policy

Britain had the most advanced industrial economy in the world when the railway age began, and the British attributed this good fortune to their political traditions. The state's main encouragement had been to eradicate policies that favored agriculture over industry, and the British came to see this sort of laissez faire as the key to their industrial prowess. Capitalists applauded it, for they believed that a Parliament dominated by landowners must either serve agriculture or leave well enough alone (Polanyi 1944).

The British state was not oriented toward government tutelage of industry, and her political culture championed individual liberty. Thus the railway age led the British to a unique set of dilemmas. With state structures that shielded individuals against powerful private parties and public officials, the British questioned whether the state could expropriate private lands to satisfy rail promoters; wondered to what extent the state was obliged to protect passengers from railways indifferent to their security; and wondered whether Parliament might prevent large predatory firms from destroying their competitors. In developing this policy stance, the British articulated a theory of growth in which masses of free entrepreneurs were the key to prosperity.

Planning and Finance

The British contended that private parties would plan the rail routes that showed the greatest promise of making money and serving the nation. In stark contrast to their French counterparts, British politicians identified the public interest with the aggregation of private interests. The British state wanted no role in planning. Parliament's sole concern was to protect the rights of property-owners. Should the state use its powers of eminent domain to appropriate the rightful property of citizens? How could the state balance the right to free enterprise with the rights of property? In the debate over the Liverpool-Manchester charter, a Mr. Harrison, representing three landowners, argued; "I think that one of the first and greatest principles of our Constitution is that old common principle, 'That every man's house is his castle' and that property is not to be invaded at the suggestion of any joint stock company of speculators" (Great Britain, Parliament 1825, p. 322). By 1840, Parliament resolved that as railroads were in the public interest, they could claim lands through eminent domain. But they went over charters with a fine-toothed comb to detect speculators with no intention of serving the public.

Nor did Parliament ever finance roads, or regulate their financing. The state's sole concern was to see evidence that charter applicants had sufficient funds to proceed, to avoid unnecessarily expropriating private lands. Some have argued that the British state did not need to finance railroads, as the world's leading capital market was in London. But railroaders were not overwhelmed with offers of capital. While London investors financed American railroads via government-backed bonds, London banks had not developed the institution of long-term industrial loans – which British railroads required. This was so because British manufacturing had always financed capital projects internally (Chandler 1990). In consequence, British

railroads typically went to interested parties to raise capital. British government did not stay out of railroad finance because the roads had no need of funds, but because the British resisted government involvement.

Thus in railroad planning and finance, Britain looks starkly different from both the United States and France. Britain depended entirely on individual initiative, with members of Parliament arguing that government participation could only destabilize the industry.

Technical Coordination

Parliament did virtually nothing to regulate or coordinate railway operations. It left gauge and management decisions entirely to individual roads, and imposed modest safety regulations only very late in the game and with great reluctance. The thinking was that firms should be permitted the greatest freedom possible, given the state's duty to protect her self-sovereign citizens. In that role of protector, Parliament did step in regulate safety, but only when all else failed.

Parliament's reluctance to intervene in the affairs of private concerns stalled the selection of a standard gauge. In 1837, a Mr. Pease asked Parliament to let the government establish a common gauge. In a speech reported in the third person, Poulett Thomson cited parliamentary committee opposition and traced Britain's greatness to its reluctance to regulate:

The committee had recommended to leave railways, like every other speculation, to the discretion of those who embarked their capital in them, subject only to a severe scrutiny from Parliament. ... [Parliament] would find it impossible to regulate the expenditure of capital by any Act ... it was by the government not meddling with capital that this country has been able to obtain a superiority over every other country. (Great Britain, Parliamentary Debates 1837, c. 1162)

This argument prevailed. By the middle of 1845 England claimed 1901 miles of 4' 8½" track and 274 miles of 7' track (Lewin 1925, p. 108). In June of 1845, a Royal Commission advocated a common gauge for new and existing lines, but the bill that emerged took the form of a suggestion, not a mandate (Lewin 1925, p. 108; Bagwell and Mingay 1970, p. 26; Hodges 1889, v. 1., p. 141).

With the issue of safety, Parliament struggled between maximizing the liberties of railroads and protecting the life and liberty of citizens. The British believed that in the industrial realm as in the political, the state was obliged to protect citizens. Yet at first, Parliament steadfastly insisted that market pressures would lead firms to adopt safety measures. All that was that needed was the pressure of public opinion. In an 1840 parliamentary discussion of public oversight, a Mr. Easthope argued that, "the interests of the proprietors of these public undertakings, were identical with the interests of the public ... the best plan was to let them proceed in that course without dangerous meddling" (Great Britain, Parliamentary Debates 1840, c. 907). This view was diametrically opposed to the French view, but it was not at all far from the American view.

By the mid-1830s, it was clear to most that public opinion was a poor regulatory device. But the British were of two minds, believing on the one hand that the state had a duty to guard sovereign citizens and on the other that by meddling the state would abridge economic liberties and disrupt the industry. Parliament gingerly expanded regulation in two phases. First, Jeremy Bentham promoted public inspectorates to shed light on sectors of public interest. Between 1834 and 1850 Parliament established inspectorates in a dozen realms, from mining to prisons to railways (Roberts 1960, p. 195). Each was to inform public opinion so that it could do its job of regulation (Roberts 1959, p. 106). The Railway Department (est. 1840) was to inspect new lines

to ensure that they had been built as their charters specified (Hodges 1889, pp. 12-15). Charters were written by railways in the first place, and the Department was confined to warning "the railway company of the neglect of which they had been guilty." The Department had no power to interfere with private railways, for "it would be going very far to allow a Government board ... to stop the progress of any public work merely upon their own declaration" (Great Britain, Parliamentary Debates 1840, c. 917).

Second, by late in the 1880s Parliament recognized that inspection had failed to encourage railroads to adopt such rudimentary safety devices as mechanical brakes and blocking, which was a signaling system that kept trains from colliding. In 1889 a gruesome accident that left 78 dead and 269 injured spurred legislation mandating brakes and blocking (Bagwell 1974, p. 181). Parliament finally reconciled its commitment to *laissez faire* with its commitment to protecting its self-sovereign citizens.

Whereas French state engineers had assumed charge of virtually all technological and managerial standards in the belief that it was the state's duty to regulate private enterprise, British public officials believed that the railroads should have every possible liberty, and that public opinion would do the job of ensuring that railroads behaved responsibly. In Britain, the idea that the state must guard political liberty was being translated into a precept of industrial life.

Competition Policy

Industrial paternalism assumed a new form as the railway industry developed. Public protections for sovereign citizens were generalized to the firm when Parliament adopted policies that would shield firms from predators and from markets. The liberty of the firm took on the same kind of importance in the economic realm that the liberty of the citizen held in the political realm. Whereas the United States permitted mergers but outlawed cartels in order to protect market mechanisms, Britain virtually outlawed mergers but orchestrated cartels in order to protect the liberty of the firm.

Early on, competition policy revolved around rates. The state at first guaranteed the right of the firm to set rates. Early rail charters specified rates in detail and thus looked, on the surface, like French charters. Yet whereas French engineers wrote rate clauses to prevent price gouging, Britain's railways wrote their own rate clauses to preclude the state from meddling in the future. Thus the rates written into British charters were well above actual charges.

In 1844, Parliament began to regulate third-class fares to protect the poor against overcharging. A Mr. Wallace argued against the move, insisting that the threat of competition should do the job:

the natural control over these companies [is] not by minute interference with their gains, or their management, but by holding out to them the menace of competition. ... the House might say this to a railway company. We find your profits oppressive to the public pocket; ... we shall, ere long, think ourselves justified in encouraging a new company, to supply the advantages you withhold. (Great Britain, Parliamentary Debates 1844, cc. 250-251)

But Parliament voted to set third class rates, in the belief that the state had a duty to protect the weakest citizens from the strong.

With the issues of mergers and cartels British policy diverged must fundamentally from U.S. policy. For the British, competition was important to growth, but it was not supposed to kill off self-sovereign firms. When they saw firms die at the hands of predators, or of the market, the British felt sure that they were witnessing an abuse of power. The state had protected subjects against their stronger peers, and it came to do the same in the industrial realm. In the British

mind, competition came to mean entrepreneurial drive among independent firms, and not natural selection in free markets as it came to mean in the U.S. Thus the British did just the opposite of what their counterparts across the Atlantic were doing.

Parliament had to approve all proposed mergers, because it voted on changes to charters. It denied hundreds of applications and approved few, arguing, first, that mergers were invariably predatory and, second, that they quashed the state's only regulatory tool, which was competition. As Mr. Turner argued of railroads in the 1840 debates over regulation: "Their monopoly was complete; but the House had this check upon them ... they might establish rival companies" (Great Britain, Parliamentary Debates 1840, c. 930). An 1852 committee argued that Parliament should "refuse to sanction amalgamations except for working arrangements made for limited periods of time" (quoted in Bagwell and Mingay 1970, p. 36). On half a dozen occasions Parliament visited the issue of whether to outlaw mergers with blanket legislation, but as they could not reconcile this with the ideal of *laissez faire* they continued to deny applications individually (Bagwell 1974, p. 164; Cleveland-Stevens 1915, pp. 59-60),

Without the possibility of mergers, railways were left to "rely on less formal and often less stable methods of regulating competition between themselves" – cartels (Channon 1983, p. 59). From 1873, Britain saw the rise of cartels in industries as diverse as cotton spinning, cement, wallpaper, and tobacco (Grove 1962). Parliament had always given private cartel agreements the force of law, unlike Congress, and in 1858 proposed state coordination of cartels (Bagwell 1974, p. 165). In 1888, the year after Congress passed the Interstate Commerce Act to break up cartels, Parliament passed the Railway and Canal Traffic Act authorizing the administration to forge a national rate agreement with the force of law.

In deciding to create a national cartel, Parliament sacrificed the market to the entrepreneur. By contrast, American legislators saw the disappearance of price competition as a greater evil and hence outlawed pools and cartels. The French perceived competition in the industry to be potentially destabilizing and irrational, and very early forced railways to merge into huge, non-competitive, regional monopolies.

In sum, the British believed that railway planning and finance belonged entirely to the private sector. Private actors would achieve both ends if left to their own devices. When it came to technical coordination, Parliament was convinced that matters should be left to the private sector. Parliament sought to encourage safety measures, and set third-class fares, to protect weak citizens from selfish corporations. They thereby carried on the British state tradition of protecting the weak from the strong. The supreme entity in the British polity was the individual, under feudalism as under democracy. Competition policy recognized this. Parliament prevented mergers and built cartels to protect the weak from the strong. The British articulated a corollary theory of economic growth, in which entrepreneurialism was key to progress and in which competition alone could compel firms to act in the public interest. Parliament could no more stand by and watch new industrial "parcellized sovereignties" be acquired than they could stand by and watch landowners be routed by their neighbors.

Thus over the course of the nineteenth century Britain's industrial approach changed from one of classical *laissez faire* to one of regulation designed to protect weak citizens and weak firms. The British came to prize the entrepreneur; the Americans came to prize the market itself. The contrast is striking, because it challenges the naturalness of the laws of the market. Does *laissez faire* demand that firms be allowed to merge and acquire at will? The British thought not, but they did think that it demanded that firms be allowed to make contracts freely, including cartel contracts. Does *laissez faire* demand that firms be allowed to make price-fixing contracts?

Americans thought not, but they did think that firms should be free to acquire their competitors.

CONCLUSION

By the beginning of the twentieth century, the United States, France, and Britain had developed dramatically different strategies for promoting growth. Those strategies have shown surprising resilience. Most analysts have taken parallels between nations' political and economic systems for granted, using "laissez-faire", "liberalism", or "statism" to characterize both at once. My aim has been to problematize these parallels and to suggest that they hold the key to understanding policy variation across countries. Modern states and economies arose in tandem in the West, with states organizing economies as they themselves developed (Fligstein 1996). I have tried to discover how industrial order came to resemble political order by studying how early nineteenth-century state institutions influenced the subsequent development of railway policy. I do not suggest that the industrial policy paradigms (Dobbin 1993; Hall 1993) that emerged in these countries were over-determined by political culture -- indeed America's early local leadership was rejected and replaced with federal market enforcement. Rather, I argue that by designating certain social processes as constitutive of order, political institutions shaped the kinds of industrial systems nations could imagine. Thus the logic of political organization became the logic of industrial organization.

The American state symbolized the sovereign town meeting as the key to political order, and early rail policies emphasized community control over planning and finance. These early policies denied control over industry to the central state, but when they brought graft Americans crafted a new approach. The logic of antitrust was that it prevented large combines from trespassing on the liberties of small enterprisers. It turned the central state into a market referee, with the effect of locating authority once again in civil society, but this time in market forces rather than in town meetings. By the early decades of the twentieth century, the United States had developed a market rhetoric of progress to complement this new industrial system (Wilson 1980). The American case demonstrates that while a nation's policy approach is shaped by its political institutions, that approach is not inevitable -- because local activism was replaced by another characteristically American solution. With the state-as-referee model the relationship between the federal government and the states was reproduced in the industrial realm as a relationship between the federal government and enterprises.

French political traditions made central state sovereignty the key to political order, and rail policies made state control the key to economic order and efficiency. In French political life, autonomous individuals (maverick lords) posed a threat to the polity, and so private parties, corporations, and local governments were subjugated by the central state. French rail policy likewise located control in the central state, which subjugated irrational private entrepreneurs, local governments, and even market mechanisms. The driving idea of military absolutism -- that the state must regulate privatism to achieve order -- thus came to shape industrial institutions. By 1900 the French had articulated a vision of economic rationality in which government orchestration of private, self-interested, action was indispensable to growth -- for key sectors of the economy in any event. The French case thus reaffirms Tocqueville's assertion that a government's form is not determined by its regime type, whether democratic or monarchical. The French belief in authoritative central state control, of politics and industry alike, did not die with the monarchy but persisted to shape modern democracy and industry.

British political culture represented individual self-sovereignty as the key to order, and rail policies made entrepreneurial control over planning, finance, coordination, and competition

the key to industrial order. Britain's political institutions had denied authority to powerful lords, to the Crown, and to the administration by empowering individuals and their representatives in Parliament. Rail policy was similarly designed to shield firms from dominant railways, by outlawing predatory mergers; from state officials, by denying them the power to dictate to railroads; and from market forces, by shielding firms against price competition. Between the time of Adam Smith and the close of the 1800s, the British conception of the state's role had changed. Classical laissez faire gave way to the notion that the state would have to actively defend not only the downtrodden, but entrepreneurs. When added to the first two cases, the British case brings industrial strategy into three-dimensional relief. These three countries cannot be arrayed along a single continuum, from statist to privatist. Despite their common enthusiasm for laissez faire, Britain and the U.S. developed starkly different industrial logics, one choosing to support the firm and the other, the market.

My principal goal has been to characterize the historical origins of these nations' rather different ideas about industrial efficiency. Weber had the idea that each society's particular economic ethic could be traced to history, religion, and even geography (Swedberg 1998). Here I have emphasized history, and how the polity offered a cultural model of order for nineteenth-century architects of industrial strategy. It is hard to get one's mind around the idea that economic institutions are driven by culture, in this sense, for it requires considerable sociological imagination to abandon the presumption that universal economic laws drive our behavior and to treat modern institutions as driven by meaning. How would an anthropologist from Omega Centauri see our modern state institutions? As driven by nature alone, or as driven in large part by history and happenstance as they became embedded in social institutions? My goal has been to describe how meaning shapes new institutional arrangements in rationalized societies. We perceive the logic of existing institutions, and read reason and rationality into those institutions. Thus we see democracy as invariably founded on community self-determination or on the sovereignty of a central state capable of subjugating regional powers. When we fashion new institutions, we use these invariable principles. A modern, orderly world depends on community economic self-determination, or on central state orchestration of economic life.

I mean to argue that not only is economic behavior embedded in a wider institutional milieu, but that that institutional milieu itself is palpably embedded in history (Granovetter 1985). Prevailing theories fail at explaining national economic institutions in large part because they neglect this, and instead focus on the native's own dilemmas. In the native accounts, political conflict and economic laws shape economic institutions. Social scientists have searched for the particular conflicts and laws that are at work, rather than seeking to explain the cultural and historical origins of those conflicts and laws. Where did the principles of market competition, technocracy, and entrepreneurial capitalism come from? They came in no small part from the history recounted here. A cultural approach to modern economic institutions would not merely follow the lead of the natives, but would show the natives a new way to see their own world.

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