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Politics, institutional structures, and the rise of economics: A comparative study

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Our modernity has been a witness to the dramatic rise of economics around the world. Since the middle of the nineteenth century, the study of the economy has evolved from a loose discursive "field," with no clear and identifiable boundaries, into a fully "professionalized" enterprise, relying on both a coherent and highly formalized disciplinary framework, and extensive practical claims in administrative, business, and mass media institutions. Perhaps more than any other form of knowledge, economics has participated in the rationalization of our "life-world," to use Habermas's phrase, by extending its logic into ever more remote areas of our everyday experience.

At first glance, the expansion of the discourse and profession of economics may be understood as a fairly homogeneous, world-level, trend of societal rationalization. Certainly, the dominant intellectual form in economic science (largely derived from the Anglo-Saxon tradition) generally presents itself as a universalistic paradigm. Its main rhetorical tool – model-building – is often taken-for-granted as a "natural" product of the cumulative development of scientific knowledge. And since professions derive much of their authority and social legitimacy from the delimitation of a coherent and widely shared domain of knowledge, we may regard modern economics' claims to expert monopoly as a logical extension of its own internal theoretical and methodological strength. The extensive jurisdictional prerogatives of economists thus seem to be legitimated by the fact that their discipline constitutes undoubtedly the most well-bounded and organized scholarly enterprise in the social scientific field.

The purpose of this article is to contradict this supposed "naturalness" of scientific and professional development in economics. Cross-national surveys of opinion have already shown that economists in different

countries tend to share different convictions about the economic world and the likely effects of economic policies, or to see their mission as primarily "academic" (United States) or more "political" (Europe). Available historical studies of national economics fields also suggest very diverse images of professionalization processes and disciplinary development. Overall, contrary to the frequent assumption that economics is a universal and universally shared science, there seems to be considerable cross-national variation in (1) the *timing and nature* of the institutionalization of an economic knowledge field, (2) *the forms of professional action* of economists, and (3) *intellectual traditions* in the discipline of economics.

How we should explain such differences and how different aspects of these variations might be related to one another remains, however, largely unexplored. In particular, we do not have a satisfactory theory of knowledge formation that would allow us to account simultaneously for the social structures and institutions that support the formulation of knowledge claims and ideas, *and* for the latter's intrinsic, substantive nature. Second, our comparative frameworks, often designed to compare broad cultural ensembles (for instance, the "continental" world to the "Anglo-Saxon" one), often appear insufficient to account for more subtle cross-national variations within each category. I now turn to each of these puzzles separately.

The embeddedness of knowledge in social structures

This article starts from the methodological premise that understanding the relationship between the institutional and intellectual aspects of knowledge production requires, first and foremost, a historical analysis of the conditions under which a coherent domain of discourse and practice was established in the first place. This consideration prompted a focus on the institutionalization of economics at the turn of the twentieth century. A critical period in the formation of what we now call the social sciences, the years from (roughly) the 1880s to the 1910s, constitute a unique research site to investigate these questions. Indeed, it was during that time that economics started to crystallize as a distinct occupational *practice*, with the emergence of university chairs, scholarly reviews, and professional organizations, and the appearance of a demand for economic expertise from various sectors of society (see Table 1).

Table 1. The institutionalization of economics before 1914, main facts

	Germany	Great Britain	France	United States
Early academic chairs	"Cameral sciences": 1727	Training Institution of the	National Conservatory for the	1810–1820 in the North-
	"state sciences": Staatswirt- schaftliche Fakultät, Tübingen, 1817	East India Company, 1805 Oxford, 1825 University College, London in 1828	manstrial Arts, 1019 Collège de France, 1831	easieth coneges
Critical period of expansion	Gradually throughout the nineteenth century	London School of Economics and Political Science, 1895	École Libre des Sciences Politiques, 1871	1880s-1900s
	doctorate in economics: 1880s at various German universities	Economics and Pointean Science Tripos in Cambridge, 1903	nicot pot auton nito ute taw curriculum, 1877	
Most important reviews	Archiv der politischen Oekonomie und Polizeiwissenschaft 1835 Zeitschrift für die gesamte Staatswissenschaften, 1844 Jahrbücher für Nationalökonomie und Statistik, 1863	Economic Journal, 1891	Journal des Economistes, 1841 Revue d'Économie Politique, 1887	Quarterly Journal of Economics, 1886 Journal of Political Economy, 1892
Specialized, scholarly/ professional, associations	Verein für Sozialpolitik, 1872	British Economic Association, later Royal Economic Society, 1890	Société d'Économie Politique, 1842	American Economic Asso- ciation, 1885
Other important associations and clubs for economists	German Free-Trade Associa- tion, 1858	Political Economy Club of London, 1821		Political Economy Club, 1883

Through a detailed historical analysis of four national cases (Germany, Great Britain, France, and the United States), I show that the institutional location of economists is always of paramount importance to understand the intellectual substance of the knowledge they produce. In other words, the twin questions of "who is an economist" and "what economic knowledge is" in different societies are more deeply intertwined than is usually acknowledged. We cannot, for instance, consider the emergence of historical economics in Germany, and analytical economics in Great Britain, as the result of pure historical contingencies. Rather, we have to relate both intellectual forms to specific political and educational institutions. These broader structures, I argue, have shaped the intellectual location of economics, by making certain cognitive frames available (and excluding others), and by locating the formation of economic knowledge within particular academic contexts, which constrained the range of possible academic alliances.

My point is not to adopt a purely relativistic point of view on the production of knowledge and to argue that all aspects of scientific discourse can be, purely and simply, derived from institutional factors. However, arguing that the latter do not matter at all would be equally unfortunate. The idea that paradigms are partly nationally constituted and connected to broader cultural characteristics and organizational arrangements seems, after all, intuitively valid. Galtung,³ for instance, identifies distinct national "intellectual styles," which he then connects to characteristics in the social structure. In his study of railroad development in three countries, Dobbin suggests that rationality itself is a cultural product. Political culture, he argues, shapes not only the institutional instruments actors have at their disposal for conducting industrial policy, but also their perception of the problems to solve. The solutions they come up with to handle these problems are, ultimately, the result of this dual constraint.⁴ The present article emphasizes a similar point by showing that scientific discourses in economics (that is, economic ideas, theories, and paradigms) are inevitably driven by broader, nationally constituted, cultural frameworks embodied in specific institutions of knowledge production.

Comparing economics across nations

Turning now to the comparative aspect of the argument, I show in this article *how* national political structures and institutions have shaped

economic knowledge development in the four countries under investigation. In their struggle to legitimize their discipline and construct their role relative to other professional enterprises, economic practitioners in Germany, Great Britain, France, and the United States sought to derive authority from three main institutions: the higher education system, the state, and the economy. That is, they formulated claims about the intellectual distinctiveness of their discipline, about the relevance of economic knowledge for policy, and about its usefulness for practical occupations. The nature of the economists' involvement with those three institutions, however, and their ability to mobilize them successfully in their quest for legitimacy, was highly uneven across national contexts. Rather, in each country different institutional environments provided different sources of authority on which to base jurisdictional claims, giving each national field a distinctive "identity." Thus in Germany, the professional authority and substantive content of economics were most heavily influenced by the formal relationship of the "mandarin" professors' class to state institutions and administrative practice. The United Kingdom, on the other hand, exhibited a more decentralized model, where economic practitioners asserted their position through civil society institutions on the basis of their high-minded status and more strictly "scientific" disciplinary claims. Comparatively, the institutional position and intellectual jurisdiction of economics in France were the most contested of all four countries, which was largely due to a lack of support from the state and the relative weakness of disciplinary organization. Finally, the identity of American economists at the turn of the century was largely defined by their ability to legitimate claims about the "usefulness" and "relevance" of their knowledge to key institutional audiences.

This research thus attempts to provide medium-range analytical categories that can help us "contextualize" the relationship between societal institutions and the production of knowledge – in other words, to identify the key factors that have made the formulation of jurisdictional claims on the economy possible in four different national contexts. As such, it comes within the scope of a growing body of comparative-historical literature showing how state structures and other broad institutional arrangements have shaped both the social sciences' academic and professional space, and their relationship with policy. It also addresses one of the important findings of the modern sociology of the professions – namely, the basic distinction between a "continental European" model of professional development, centered around the state as a regulating mechanism, and an "Anglo-Saxon" or

"liberal" one, based on decentralized control by practitioners gathered in associations.⁶

The four-way comparison in this article, however, allows a much finer analysis of the role of political institutions in shaping professional and intellectual jurisdictions, by acknowledging possible variations within the two main categories, such as the difference between French and German "continentalism" and that between American and British "liberalism." For instance, the relationship of French economists to the state during much of the nineteenth century – and well into the twentieth – was often conflict-ridden; by contrast, German economics was much better articulated with administrative institutions. Correspondingly, the American form of professionalism was organized very differently from the British one, with much less centralization around authority figures, texts, and institutions. As we describe below, these four different relationships gave rise to four different professions.

The rise of economics at the end of the nineteenth century

Economic discourse was certainly not born in the nineteenth century, yet it is usually to the period following the publication by Adam Smith of the *Wealth of Nations* in 1776 that the roots of modern economic analysis are traced. Dumont argues that the major conceptual breakthrough of the great Scotsman's book resides in the separation of the economic realm from the political realm and in the constitution of the former as an autonomous intellectual category. As such, it also inaugurated an era where the practice of political economy would assert itself as an increasingly distinct and separate enterprise. Between the 1790s and the "marginalist revolution" in the 1870s, and while economic theory was still in its infancy, a specialized field of *discourse* was progressively circumscribed for the study of the economy.

There is little doubt that the transformation of European economies and societies by the industrial revolution played an important role in the rise of these new forms of knowledge, by prompting an interest in the economic mechanisms, which were thought to accompany the process of change. The assumption that the emergence of modern economic thinking was somehow stimulated by the ongoing transformation of economic relations is, for instance, implicit in Heilbroner's classic book, *The Worldly Philosophers*. It can also be found in Polanyi's *Great Transformation*, which understands the ultimate triumph of laissez-

faire economic ideologies largely as one outcome of unleashed selfregulating market forces after the repeal of the Speenhamland system in early nineteenth-century Britain.

The view that economics as an organized field is a pure outgrowth of the emergence of industrial society does not, however, do justice to the complexity of historical processes. First, historiography has demonstrated the importance of other factors in the institutionalization of economic discourse. For instance, in Germany the expansion of public finances and state bureaucracies played a key role. Similarly, a close study of the American context reveals that, in this case, the rise of the social sciences was intimately tied to the emergence of a new institutional form – the modern research university.

Second, the timing of industrialization does not explain the pattern of institutionalization of economics as a field of teaching and practice, and neither does it account for the discipline's analytical progress. Thus, in England and France, two countries that, according to Schumpeter, witnessed the most important intellectual achievements during the late eighteenth and early nineteenth century, the organization of economic teaching came late and proceeded rather slowly. By contrast, in the later-developing German states, early forms of what we now recognize as the discipline of "economics" existed as fairly self-conscious and institutionally organized subjects, most notably in Prussia. Yet we are less often aware of this fact because German economics, being far less analytical than its British counterpart, did not produce a similar theoretical system, and is thus not so well remembered today.

No single factor, then, appears sufficient to account for the rise of economics as an organized field of knowledge production in late nine-teenth-century Europe and America. In each country, the transformation of higher education systems, political systems, and economic systems shaped the national possibilities for the expansion of economic discourse and practice, and oriented the local fields of economic knowledge production along very distinctive development paths. I next examine each case separately.

Germany: The role of the state and the authority of professors

As early as 1727, two chairs in "*Oeonomie, Policei und Kammersachen*" were established at the universities of Halle and Frankfurt an der Oder,

and "by the end of the eighteenth century, nearly every university in Germany had a chair in economics." ¹¹ Academic institutionalization proceeded rapidly during the nineteenth century, with the expansion of the number of chairs, the development of uniform curricula, the adoption of clear-cut denominations for the various subjects, the emergence of textbooks, specialized journals and reviews, ¹² the establishment of research seminars centered around applied questions, and, finally the creation of professional organizations. ¹³

The pioneering position of the German states with respect to systematic advanced training in economics – as well as in other sciences – also meant that it attracted many foreign students. A whole generation of American scholars was educated there during the nineteenth century¹⁴ and drew inspiration from the German model when developing their own curriculums and departments upon their return to the United States. Although it may seem surprising to many of us today (given the overwhelming authority of the British tradition), in fact "up until the 1920s, German economics exerted a powerful influence on the development of the discipline on an international scale." ¹⁵

Cameralism, Nationalökonomie, and Volkswirthschaftslehre

The first German economics chairs were located in the faculties of philosophy, that is, "in relation with politics and ethics." ¹⁶ They were designed for the training of civil servants and thus closely associated with the business of state administration. This "cameralist" science, as it was then called, ¹⁷ was an essentially practical discipline that "specialized in purely descriptive presentation of the facts relevant to public administration," and its professors were also often involved in the practical affairs of the government. ¹⁸ Its objectives were primarily to further the interests of the state through rational means, notably by focusing on the question of how to raise revenues.

During the nineteenth century, cameralism evolved into the broader framework of the *Staatswissenschaften*, or the "sciences of the state," which included economics, finance, the sciences of trades (such as agriculture, forestry, transportation, police science), and statistics. Political economy courses and textbooks were themselves typically divided into three parts: theory, policy and public finance – a pattern, that stills holds largely today. The main function of the *Staatswissenschaften* was to participate in the training of officials and civil servants,

which was primarily in law. Thus, although the "sciences of the state" were institutionally set apart from the juridical disciplines, the two were nonetheless tightly linked through the common purpose of civil service examinations.

This connection was reinforced throughout the nineteenth century as the various German states, following the example of Prussia, increasingly placed the Staatswissenschaften under the institutional control of state law, which had come to be regarded as a more rigorous field.¹⁹ However, while the Staatswissenschaften abandoned some of their influence on the training of civil servants to the law faculties, their academic position remained strong and their intellectual autonomy increased. On the one hand, the creation of the modern research university in Berlin in 1810 had redefined scholarly specialization (rather than religious and humanistic instruction) as the principal goal of higher education. This was embodied, for instance, in the requirement of two dissertations – doctorate and habilitation – for professorship, and in the attribution of chairs according to the narrow field of concentration. (During the 1880s, separate doctorates in the sciences of the state were established at most German universities.) The institution of the seminar in political economy, which gathered the most advanced and promising students outside the framework of the regular classes, further encouraged the specialization of scholarly competence.²⁰ On the other hand, political economists started to understand their object from a more individualistic point of view, where the state's role was to "shape" the economic order in which free citizens interacted, rather than "govern" it authoritatively. Characteristically, the relatively specific terms of Volkswirtschaftslehre or Nationalökonomie started to replace Staatswissenschaften as the most common designations for a field whose boundaries were now more clearly defined.²¹

Historicism in the German intellectual context

Still, the substantive interests of German economists were without doubt shaped by their institutional location (the broad organizational framework of the "sciences of the state") and the original subordination to administrative demands. The substance of German economic discourse – until today – became characterized by an "emphasis on applied questions, on social policy issues, on the state as a central actor in the economy." Hennings put it starkly: "economics did not develop as a science for studying and explaining economic fluctua-

tions, but as the science of how the state could influence economic fluctuations." ²³

Another intellectual characteristic of German economics after 1850 is the emergence of the historicist approach, a major divergence from the intellectual path started by classical British political economy. Initiated in the 1840s by the work of Roscher but with profound roots in the philosophy of German Idealism, the historicist conception came to govern most of Germany's scholarly production in the field. Briefly, its core methodological credo defended the unity of the human sciences (*Geisteswissenschaften*) against the natural ones. Considering that "the abstract and classificatory methods of the natural sciences were inadequate models for the study of the human world," ²⁴ it proclaimed the primacy of historical monographs and empirical work over positivist methods and insisted that all human phenomena ought to be studied in their broad, and time bound, societal context.

Roscher's own textbook was edited 26 times between 1854 and 1922.²⁵ By the 1890s, historicism was the dominant position taught at universities throughout the country. In contrast with the marginalist approach defended by the British and the Austrians, which considered that the goal of political economy was to look for "natural laws," the formulation of broad generalizations was viewed with extreme suspicion by historicist scholars. Such fundamental differences between inductivism and deductivism brought critical disputes in the field at the end of the nineteenth century – the most famous of these, the *Methodenstreit*, famously plagued the German-speaking academic scene from the 1880s to the 1910s.

Part of the strength of historicism in Germany came from its resonance with the country's political culture, as well as from the structure of academic institutions. Romantic reformers in the 1800s had created the modern university as a "model of unified knowledge within a historical context," and this framework was to dominate organizational arrangements throughout the century. It is quite remarkable, for instance, that the intellectual position of economics was not seriously affected when the natural sciences organized into separate faculties in the middle of the nineteenth century. Rather, *Nationalökonomie* remained firmly within the framework of the human sciences, which allowed a characteristically holistic approach to economic objects to prevail until well into the twentieth century. Pay contrast, in England, the social sciences had come into being as the natural sciences were

establishing a strong foothold in British academic institutions, and thus looked elsewhere – toward mathematics and physics – for their intellectual models.

Not only did the German academic environment foster a model of pure scholarship and thoroughly specialized cultivation rooted in the authority of historical methods, but institutional mechanisms made it extremely difficult to challenge the view of the professorial caste, which controlled appointments. First, in the absence of new university reforms, "mandarin" professors continued to exert considerable power over the definition of acceptable intellectual views.²⁸ Second, political surveillance by an authoritarian state played its part, too. Under Chancellor Otto von Bismarck (and after his resignation in 1890), appointments of "historicist" professors were deliberately encouraged by the state in its struggle for political influence against Austria.²⁹ In fact, each country sought to reinforce the homegrown school of political economy through the manipulation of recruitment and promotions. In a country where political freedom remained restricted, the historicist rejection of individualism, and its conception of the nation as a historically evolved social whole, was supported by a Prussian monarchy (later German Empire) in need of internal and external legitimation. As Konrad Jarausch has shown, whatever the professors' reserve about the social and economic policies of the Reich, the majority of them still "idealized the Prussian system" and stood firmly behind the imperial program of national expansion.³⁰

German economists and policy

Academic institutions were, of course, not the only place where an organized economic discourse was produced in Germany. "Smithianism" (or the adherence to the principles of Classical English political economy) was quite popular in the 1850s, notably among Prussian politicians and civil servants (and even a number of academics). A variety of organizations flourished in German society that supported the reform of economic institutions. In the middle of the nineteenth century, free-trade views were, for instance, enthusiastically promoted by an association of liberal businessmen, journalists, and statesmen that was founded in 1857, the Congress of German Economists (*Volkswirtschaftlicher Kongress*). Until the creation of a united Germany in 1871, the *Kongress* was a major voice in public economic debates, and it contributed in no small measure to the liberal policies of the *Zoll*-

verein (German Customs Union). However, its influence started to recede once its major goals, such as the removal of archaic regulations on the movements of labor, capital, and goods inside the German confederation, were attained.³¹

The advent of rapid industrial growth during the last quarter of the nineteenth century in a united German economic space substantially altered the context of economic knowledge production. Economics professors in universities became concerned with the new problems, which had arisen in conjunction with industrialization, most prominently the condition of German workers and the threat of a social revolution. A new organization, the *Verein für Sozialpolitik* was created to address these issues and promote a greater role for the state in "(regulating and moderating) the contending industrial classes" without questioning too much the broadly liberal basis of the market economy.³²

The constitution of the *Verein für Sozialpolitik* as early as 1872 thus appears the single most important episode in the relationship between German economists and the state in the period that preoccupies us. It is today the oldest professional association of economists surviving in the Western world. From its foundation to its forced disappearance under nazism, it used to enjoy such international prominence that the economist Jacob Viner said that it "almost at once became by far the most influential organization of economists in the world." Hence the first efforts of the founders of the American Economic Association to organize American economists – with the failed attempt at creating a "Society for the Study of National Economy" – had been pursued in imitation of the German body, which was then perceived as a model. "

The *Verein für Sozialpolitik* had originally been constituted as an organization for the promotion of social reform – as its name suggests. Its membership at the onset was quite varied, including representatives of "chambers of commerce, industrial organizations, trade associations, communes, universities, state bureaucracy, as well as employees, artisans, members of the liberal professions, professors and advanced students (*Dozenten*)." Professors, most prominently economists, represented only one-sixth of the members of the organization, yet they were its chief architects and provided two-thirds of its leadership. 36

Rejecting the two evils of Manchesterian ultra-liberalism, which denied the existence of a "social question," and revolutionary socialism, the Verein's platform opposed laissez-faire and pronounced its "ethical" commitment to state activism and conservative social reform.³⁷ Although individual professors in the *Verein* were rarely involved in party politics (Alfred Weber was an outstanding exception) nor sought to assume direct functions in government, they nonetheless understood their role as one of providing enlightenment and education to political actors and state bureaucracies, practicing what Ringer calls "mandarin politics."

While the high prestige of the universities gave the professors a unique authority to speak publicly, their institutional status as civil servants still put some limits on open and free statements of convictions. As Beamte, professors were expected to support the state and the government in its actions, and in particular to refrain from excessively partisan politics, at least in public. Theoretically, the compensation was that the state guaranteed academic freedom (Lehrfreiheit) in the classroom. 38 This institutional situation shaped the *Verein*'s public activism in characteristic directions. For instance, one of the most remarkable expressions of the manner in which German economics professors envisioned their public role was the systematic and collective development of practical expertise on pressing matters of public policy interest. Thus, in addition to serving as a professional forum, the Verein functioned very much as a research institute and regularly put out large-scale empirical surveys, whose topics were often chosen through informal coordination with the government (in its earliest years especially, the Verein used to petition the Reichstag). These surveys gave rise to numerous publications and studies (Schriften des Vereins für Sozialpolitik), which were thoroughly discussed at the annual conventions and in the media, thus enabling the organization to reconcile its reformist goals and its need for political legitimacy.³⁹ Between the end of the nineteenth century and the first decade of the twentieth century, the organization, either through its role in the public sphere or as a result of individual connections with state officials, thus achieved a certain political impact, helping to increase the public's and public officials' awareness of social and economic problems, and "transforming their views... on the role and responsibilities of the state." 40

At the eve of World War I, then, German economists enjoyed a secure institutional position, which was rooted in the legitimacy conferred by their inclusion into the broader realm of the German imperial state. The centrality of their knowledge to the university curriculum was firmly established, not only within the highly prestigious framework of

the *Staatswissenschaften*, but also in the emerging business schools and engineering departments. ⁴¹ By 1905, there were over one-hundred economics professors in the German-speaking universities of Europe – over three times as many as in France. Their intellectual maturity as a scholarly community was nowhere in doubt: As Lindenfeld points out, the very occurrence of the *Methodenstreit*, a struggle over methodology, demonstrates, if anything, a high degree of scientific self-consciousness and autonomy. ⁴² Finally, they practiced a form of distant public involvement, respectfully loyal to the bureaucratic autocracy from which their authority derived in the first place. As we will see below, under these three dimensions the identity of German economists contrasted quite sharply with that of their British counterparts in the same period.

Britain: Elite amateurs and militant entrepreneurs

Looking at history from the vantage point of late twentieth-century practice, it is certain that present-day definitions of "what economic science is about" owe a lot to Britain as the country where modern economic analysis was founded. Blaug's *Who's Who in Economics?*, for instance, shows that over 36 percent of the 400 most prominent "dead" economists recorded in major histories of economic thought were born in the United Kingdom (compared to 13 percent in Germany and 11 percent in France). The paradox is that these intellectual achievements seem to have been, for the most part, accomplished with an extraordinarily limited institutional infrastructure. As Schumpeter argued, the contrast between German and British economics on this point, at least for the 1870–1914 period, is quite startling:

Those who are wont to emphasize the importance for scientific achievement of professorial chairs, research funds, organizations, and the like would have to infer that English achievement was at or near the bottom of the international scale. As a matter of fact, it was at the top.⁴⁴

A late but solid institutionalization

Nothwithstanding the far-reaching influence of British authors on the shaping of the intellectual identity of economics worldwide, academic institutionalization of the discipline was much slower there than in Germany. In the early part of the nineteenth century, economic writers only rarely held professorial appointments. A few chairs in political

economy were created in the 1820s,⁴⁵ but the following decades witnessed little expansion from this embryonic situation. At the end of the century, political economy existed chiefly as a "practical" subject whose place in the elite university tradition was still controversial: it was included as a subordinate part in the general training in history (e.g., at Oxford) or moral science (e.g., at Cambridge).⁴⁶ Otherwise, it was present as a minor subject in the recently created faculties of commerce (e.g., in Manchester and Birmingham), and in the university extension classes designed for a popular (rather than elite) audience.⁴⁷

The slow pace of development of the subject in an academic environment, especially in the core institutions of Oxbridge, comes partly from the absence of a demand for such qualifications by potential employers. 48 The business and industry communities did not deem economics to be a useful subject until the 1890s and 1900s. 49 Neither did the British Civil Service (even after its reform in the 1850s) formulate expectations about specialized skills in political economy. Professional education was traditionally excluded from British universities and handled by interested occupational groups themselves - so that the commercial professions felt little need for formal training in political economy. And the British Civil Service was the province of elite amateurs often educated in the humanities. Political economy became a required subject of civil service examinations after 1871, but it carried far less weight than the traditional "classical" subjects. 50 The absence of an explicit articulation between economics and bureaucratic training stands in marked contrast with the German model of the cameralist sciences, or even the French École Libre des Sciences Politiques, which, as Winch remarks, both "embody the vision of a more technocratic state."51

Still, the practice of political economy in nineteenth-century England was very alive, but many of its key institutions were non-academic. The field was organized around popular reviews, on the one hand, and learned societies and clubs, on the other. The publication of books of vulgarization of economic ideas, such as Mrs. Marcet's *Conversations* and Harriet Martineau's *Tales in Political Economy*, were greeted with immense popular success. Pamphlets and newspapers remained one of the most privileged forms of communication on the subject of economics until the late part of the nineteenth century; serious economic debates took place in non-specialized and popular settings, for instance, in general purpose reviews such as the *Edinburgh Review*, the *Quarterly Review*, or the *Westminster Review*. But even in these media,

"the great majority of economic articles were written by part-time journalists, whose major occupation was most commonly politics." ⁵² So much so that when the scholarly *Economic Journal* first appeared in 1891, the more polemical *The Economist* had already been around for almost five decades, and, under the wring of Walter Bagehot, constituted a powerful medium for the widespread diffusion of the classical economists' ideas. ⁵³

The people who devoted their time to the practice of political economy during that period often were leisured gentlemen, enlightened businessmen, intellectuals, journalists, statesmen, and civil servants. They were gathered in learned societies such as the powerful *British Association for the Advancement of Science* (whose "Section F" covered economics and statistics), the *National Association for the Promotion of Social Science*, and the more scientifically minded *London Statistical Society*, or in elite clubs, such as the orthodox *Political Economy Club of London*. ⁵⁴

Toward the end of the nineteenth century, however, political economy started to equip itself with the attributes of a more professorialized (and professionalized) field. By 1914 the field "had become dominated by academics" 55: first, the British Economic Association (later Royal Economic Society) was created following the American model of the scientific work organization, and the Economic Journal, founded in 1891, provided the new body with an in-house outlet. Palgrave's Dictionary of Political Economy identified and centralized what had become a recognized and separate domain of knowledge. Second, critical steps were taken to make political economy a subject for full-time professional study. Chairs in political economy were established in all major British universities in the 1890s and 1900s, but by far the most decisive events were the foundation of the London School of Economics and Political Science (LSE) in 1895, the establishment of the faculty of commerce at Birmingham University in 1900, and curricular reform at the University of Cambridge where a separate tripos in economics and political science was constituted in 1903.⁵⁶

The three institutions originated in very different motivations and different views about the role and mission of political economy. The first two emerged as "new" institutions and the shape of their economics curriculum exhibits the pressure of external constituencies; the latter, by contrast, represents the evolution of an older institution, which is mainly regulated internally. Originally the LSE was created

by the Webbs as a vocationally-oriented organization, modeled after the French École Libre des Sciences Politiques to train experts for government service (who, it was hoped, would also hold modern, socialist views). However, the financial involvement of the City and the London Chamber of Commerce rapidly fostered an evolution toward the business occupations (for instance the school later acquired a railway department).⁵⁷ In Birmingham, the faculty of commerce was even more explicitly an initiative from the business community. Its organization reflected the concerns and desires of its major constituency. With its graduates entering the industry in large proportions, economics at Birmingham was acknowledged a fairly subordinate place among a host of other business-relevant subjects. 58 This situation differs from the institutionalization of an economics program at Cambridge, which created a core that was to dominate the English field of economics for the next half-century. The principal architect of the reform, Alfred Marshall, sought primarily to advance the cause of economics as a distinct theoretical and scientific enterprise, even though he never rejected the importance of final uses for economics and made sure that he secured the support of businessmen in his negotiations with the university. But the Marshallian enterprise was first and above all an academic initiative and it exhibits more autonomy from the business community than the two previous ventures (the case of accountancy, which was deliberately excluded from the Economics and Moral Science Tripos, bears witness to this fact.)

The scientific ideal in British economics

The intellectual characteristics of British economics in late Victorian England also appear quite distinctive, especially when seen in comparative perspective. The disciplinary core was built on a particular, rationalistic, representation of society, which had a long tradition in British social thought and culture, and differed quite starkly from conceptions found in other countries. First, the unit of analysis was the individual, the individual's behavior was motivated by self-interest, and individual interests found themselves ultimately in harmony at the societal level. Second, in marked contrast with the Germans, the majority of British economists at the eve of World War I were seeking to uncover abstract laws for economic behavior that would be independent from the larger historical context. They saw themselves as the practitioners of a full-fledged "science" and conceived of their intellectual mission as a primarily theoretical one, much like in the

physical sciences.⁶¹ And their claims to scientific status were reinforced by an early, and rather extensive (by the standards of the day) use of mathematical tools – a practice that had been inaugurated by Jevons and the conceptual breakthrough of marginal analysis – and were steadily expanded since then.⁶²

There is a large variety of possible explanations of the intellectual character of British economics, that is, the overwhelming authority of the individualistic model and the concomitant weakness of the historical school. On the one hand, a political culture rooted in the sovereign power of the individual partly explains the founding images and representations of the discipline. As Rosanvallon pointed out, the form taken by British economic discourse exhibits a profound affinity with the rise of civil society as a political and economic actor in eighteenth-century Britain. In sharp contrast with Germany's historicism, which came about in a bureaucratic-autocratic political culture, Adam Smith's science of wealth "constructed itself on a new representation of politics" – it saw civil society as a collection of interacting individuals.⁶³

The particular configuration of the British intellectual sphere, and the nature of disciplinary genealogies embedded in academic institutions, was of great importance too, in this country, as in the previous case. Intellectual legitimacy in nineteenth-century British elite culture was heavily vested in "classics," which included the study of the humanities, but also that of mathematics – the latter, indeed, were regarded as part of a "classical heritage" that went back to the Greeks. Mathematics was singled out "as the discipline most appropriate to intellectual training," ⁶⁴ and throughout the nineteenth century reigned at Cambridge as a prominent component of the prestigious Tripos system. ⁶⁵ Many of the major figures in British economics were trained as mathematicians (for instance, Jevons, Marshall, and later Keynes and Beveridge).

As Sanderson points out, it is through the connection with mathematics that a number of applied subjects (physics, engineering, economics) made their way into the very core of the higher education system in England. In contrast with Germany, the natural sciences were incorporated quite late in university education, sometimes not until the 1880s, and in part the latter's strategy to gain acceptance relied on their ability to demonstrate a truly "scientific" character. Economics struggled, too. In 1877 a proposal to dismiss the section F (economics and statistics) of the *British Association for the Advance*-

ment of Science (on the grounds that it did not practice true science) triggered a serious crisis.⁶⁷ It was resolved by the progressive elimination of most inductive and historical elements from the core of political economy, and the concomitant success of the deductive method.⁶⁸ Instead, economists, as well as statisticians, with whom they were closely associated, came to look toward mathematics and mathematical statistics in their quest for institutional legitimacy.⁶⁹ Thus, although Britain did experience its own version of the Methodenstreit, historical approaches failed to gain a strong foothold in that country.⁷⁰

In contrast to other nations (for instance, the United States) where intellectual life was more decentralized and thus remained more diverse longer, in England the hierarchic organization and control of university departments – where half the chairs were held by Marshall's students⁷¹ – made intellectual homogeneity a relatively easy task to achieve. At a time when Walras in France was still struggling to have his mathematical contributions recognized, and was not granted a teaching position at home, Marshall, Edgeworth, and Wicksteed, all of whom placed mathematics at the center of their approach to the study of the economy, stood among the most authoritative figures in England and commanded considerable influence over their field.⁷²

British economists and British society

British economists also differed from their continental European counterparts in their relation to policy. As we have seen earlier, nineteenth-century British civil society was a fertile ground for economic discourse. Even specialized organizations were characterized until after World War II by the persisting involvement of non-professional elements: the *Royal Economic Society* was presided over by a non-academic figure until 1928,⁷³ and individuals from the private sector (e.g., business and banking) continued to constitute the dominant fraction of membership long after that date.⁷⁴ The first president in 1982 was the then Chancellor of the Exchequer, Goschen, and the four initial vice-presidents were all members of Parliament.⁷⁵

Thus, while the relative closeness of a professionalized civil service prevented regular and formal access of political economy to state administrations and the policy process, economic ideas were nonetheless commonly exchanged among academic authors, businessmen, civil servants and politicians through informal networks organized around

various associations and clubs. Since both the political elite and the civil service were recruited almost exclusively from Oxford and Cambridge, many of these connections were rooted in social relations formed during the college years, either among peers or between students and teachers. The geographical centralization of intellectual and political life around the London area was also an important factor in maintaining the vitality of these links.⁷⁶

These informal networks did not exclude more official forms of academic consultancy on the part of economists, however. Those came usually in the form of temporary appointments on specific questions, and concerned almost exclusively the most authoritative figures in the field. For instance, professional economists from Cambridge and London were frequently heard as expert witnesses in parliamentary Commissions of Inquiry (but they were rarely full members).⁷⁷ Alfred Marshall served on the Royal Commission on Labour, and was heard at the Gold and Silver Commission, and the Royal Commission on Local Taxation.⁷⁸ William Beveridge started his long career as a nearly permanent adviser on social policy with his work on labor exchanges for Churchill in 1909.⁷⁹

Finally, a large part of the activism of British economists was carried out in the public sphere. The history of the nineteenth century is peppered by high profile debates involving economic writers, the most famous of which are certainly David Ricardo's influential activities in the bullion controversy and the movement against the Corn Laws, or Nassau Senior's major contribution to the Poor Law debate in 1834. The Whig party was a natural affiliation for economists from Ricardo to Keynes, although Fabian socialism came to attract an important following as well around the turn of the century (e.g., the Webbs and members of the British historical school).

In fact, in spite of Marshall's influential ethical commitment to abstain from public controversy, many of his colleagues did not hesitate to take an open stance on matters of economic and social policy when they felt they had some authority. Middleton shows that out of 24 key British economists live in 1914 (19 of them in academia), 7 engaged in policy advice, 13 in journalism, and 12 in policy advocacy. This pattern of involvement reached a high point during the tariff reform campaign in 1903, when a collective of fourteen economics "professors," among them Marshall and Edgeworth (who stepped out of their usual reserve for the occasion), Pigou and Bastable, issued a free-trade manifesto in

the columns of the *Times*.⁸¹ Such actions were rooted in the conviction that economics, being solidly anchored in the realm of science, had demonstrated its relevance for policy. As we see below, the absence of such confidence, and the widespread belief that ideological considerations continued to inspire much of economic discourse, placed French economics in a somewhat more ambiguous position relative to politics.

France: Libéral networks, law professors, and state engineers

As in England, the production of economic discourse in France was not a professionalized affair throughout much of the nineteenth century. Certainly economic ideas were actively put out by civil society organizations and lobbying groups, but the French State, as the main authority for the development of higher education, remained reluctant to organize a centrally administered form of training in the subject – in sharp contrast with its German counterpart. Rather, successive regimes until the Third Republic concentrated elite administrative education around technological and engineering subjects, in the tradition started by revolutionary governments and the First Napoleonic Empire.

A fragmented academicization

Economic discourse in early nineteenth-century France was identified with laissez-faire liberalism, and as such, it remained at odds with the prevailing economic sentiment of the country, which was, with a few exceptions, overwhelmingly favorable to protectionism. Economic writing was a monopoly of liberal networks tightly organized around powerful institutional strongholds in educational establishments, at the prestigious Institut de France and Académie des Sciences Morales et Politiques, and in the media. Most of the individuals involved in economic debates were associated with the Société d'Economie Politique, 82 a pro-free trade and laissez-faire club, and with its journalistic organ, the Journal des Economistes. The members of the group were primarily nobles and grands bourgeois, wealthy businessmen and journalists, who were often closely connected with political power. In contrast with their counterparts in other countries, the main objectives of those (part-time) "economists" were political, more specifically antiprotectionist and anti-socialist, rather than academic or scholarly. Many of their activities would best be described as a form of lobbying or popularization of economic ideas geared toward the government and the larger public opinion.⁸³

These free-trade liberals – also called the *Idéologues* for their dogmatic views – were acutely aware of the importance of institutionalizing their doctrine, and lobbied for the creation of some economics teaching in France. Through their activism, economics thus found a niche in the complex network of "écoles," which served to train the technical elites of the higher public service. The first economics chairs were created in a piecemeal fashion, during the few and short episodes when economic liberalism was favored among politicians. They were located at the National Conservatory for the Industrial Arts (1819), the Collège de France (1831), the École des Ponts et Chaussées (1846), and the law faculty at the University of Paris (1864). ⁸⁴ In great part, such positions were used by the liberals as political tribunes for the dissemination of their views. A dense press network and a publishing house, Guillaumin, completed the educational apparatus in diffusing liberal ideas toward a public of educated elites. ⁸⁵

The truncated progress of economics teaching in the nineteenth century reflects the tensions raised by the tight links between the emerging discipline and free-trade liberalism in a politically centered environment. In contrast with England, legitimacy in the French academic system has been historically vested in the state, both in the realm of research and in higher education. It is quite relevant for our argument that the institutional development of economics during the nineteenth century mirrors almost perfectly the country's chaotic political history, expanding under "libéral" governments (e.g., the July Monarchy 1830-1848) and contracting under the two most centralizing regimes, the First (1804–1814) and Second (1852–1870) Napoleonic Empires. Indeed, the science of "laissez faire," as French political economy had come to be known, was quite at odds with Imperial conceptions of state-controlled economic organization. Thus as First Consul, Napoléon presided over the abolition of all economics teaching from the prestigious Institute of France.86 Similarly, during the early years of the Second Empire, the police kept a watchful eye on political economy lectures and publications⁸⁷ and politicians would "fight the pretensions (of the field) to become a guide for public policy."88 With the exception of a chair created in Paris in 1864, the libérals' lobbying efforts at incorporating some regular political economy teaching into the law curriculum (which then constituted the main avenue for civil

service recruitment) continued to face the combined opposition of politicians and jurists and thus remained largely unsuccessful.

Faced with the skepticism of the public sector, the subsequent institutionalization of the discipline therefore continued to involve the mobilization of private elites. On the one hand, political economy made some very limited progress through the emergence of an early form of business education, whereby two Parisian institutions (the ESCP and HEC) included it in their curriculum as part of the practical training of commerce graduates. On the other hand, the *idéologues* "achieved a most important institutional success with the foundation of the *École Libre des Sciences Politiques* in 1871," a private school of public policy, which sought to compete directly with the university in preparing students for civil service examinations. Political economy was from the beginning given a central place in the school's curriculum. By the end of the 1870s, it included 10 teachers in the subject among its faculty.

Successive French governments remained reluctant to grant economics a place in university education until the last quarter of the century, and even then, teaching in the field was placed under the tight supervision of the law faculties. The discipline was introduced in 1877 as a compulsory subject in the law curriculum, and a chair in political economy was created at every law faculty in France. In the absence of a separate credential for economics professors, it fell upon jurists, whose reticence for the "new" field was undisguised, to teach the required courses. The subsequent development of economics as a university discipline remained slow by comparison with other countries, moving from the complete subordination to the juridical field toward greater institutional autonomy and specialization. Thus, a doctorate in law with an economic specialization was introduced in 1895 and an "economics" option in the law agrégation was created in 1898, 92 thereby generating a specialized teaching staff. During the interwar, the number of courses in economics required for law diplomas progressively increased, leading in 1961 to the creation of a separate B.A. in economics (licence d'économie), and finally an independent "economics" agrégation in 1964. Until well after 1945 then, and in contrast with the other three countries, curricular specialization did not exist until the doctorate – which meant that "every advanced student in economics had to spend (at least) his/her first three years of college studying law." 93

With the reform of the law curriculum, however, teaching economics turned into a full-time job. The proportion of professors among economic writers increased sharply, and, consequently, the connection with the nobility and the higher classes weakened. The field was now also more directly linked to the training of bureaucratic elites. During the following periods, the state's interest in the economic training of the higher civil service would become even more apparent. First, the evolution of the *École Libre des Sciences Politiques* contributed greatly to tightening the connection between political economy and the politico-administrative field. By the end of the nineteenth century, the school so excelled in preparing students for state examinations that soon the vast majority of those admitted to the *grands corps* were trained there. And almost half of the professors in post in 1900 were themselves members of the high administration, making it de facto a new *grande école*, and a major center for top bureaucratic training.

Second, the curriculum of the engineering schools was amended to include a more significant economics component. In 1903 for instance, courses in political economy were introduced at Polytechnique. 96 Originally conceived as a form of legal training, political economy courses in the engineering schools became progressively more technical. A tradition of economic calculation had emerged there during the nineteenth century, mostly out of the necessity to solve applied public economics problems in various industrial sectors (e.g., construction, railways, roads, mines).97 Teachers themselves were increasingly recruited from the body of engineers rather than from the ranks of the jurists, and they brought their specific experience to the field. For instance, one of the major influences of the period, Clément Colson, a high functionary who taught economics at the École des Hautes Études Commerciales, the École des Ponts et Chaussées, 98 the École Libre des Sciences Politiques, and the École Polytechnique, had been director of the Railways.

Discursive tradition(s): Politics, law, and mathematics

The fragmentation of institutional situations in French economics was reflected in a scattered and contested intellectual landscape. Methodologically, French university economists, who constituted the largest group, remained by tradition "juridical and literary" until the 1930s, and they displayed a characteristic avoidance of theory. ⁹⁹ The liberal school had never been strongly interested in scientific formulations,

concentrating much of its efforts on propaganda and vulgarization. 100 Hostility toward mathematics was rooted in a representation of political economy as a moral discourse on society and humanity - in the tradition of eighteenth-century philosophers. In contrast with the engineers, for instance, Cournot and Walras (who identified a distinctive intellectual sphere for "pure" (abstract) economics), and with the British professors (Jevons, Marshall, Edgeworth), who had built economics as a deductive science, French liberal economists regarded mathematization as an unacceptable narrowing down of a discourse that they thought resorted to art as much as to science. ¹⁰¹ In fact, the pioneering work of civil engineers in public finance and mathematical economics remained largely at the margins of the French community of economists until the inter-war period. The *libérals*' principal organ, the Journal des Économistes, discriminated against mathematical methods in its columns - Walras, who is now acknowledged as the intellectual father of general equilibrium theory, was a famous victim of its censorship. Cournot and Dupuit's earlier innovations were even more widely ignored. 102

The absence of mathematical capital among the libéral school's members partly explains their aversion for a type of approach that had the potential to erode their quasi-monopoly on the definition and practice of political economy in France. 103 As a matter of fact, the quasi-totality of French economists in the nineteenth century, liberal or not, were trained in classics or in law, and they had a widespread ignorance of even the most basic mathematics. Thus, in spite of the development of a more scholarly approach to economics after the 1878 reform, the latter's inscription within the legal curriculum, coupled with the method of appointment in French universities, which made access to chairs dependent on holding a national diploma ("agrégation"), further prevented mathematical approaches from being regarded as a legitimate research endeavor. A powerful instrument in the hands of universitybased gatekeepers, who presided over examination boards (and thus over the definition of the skills to be rewarded), the agrégation served to maintain the hegemony of the professors by failing countless mathematical economists who were then excluded from the possibility to teach within the university framework. 104

On the other hand, the gate-keeping role of the *agrégation* was only relative. It is not simply that the libérals and the law professors ignored the work of the engineers: the relationship is true the other way round as well. Except for a few personalities, such as Walras, who actively –

and unsuccessfully – tried to make themselves accepted among the dominant group, the engineers had their own networks and reviews (e.g., the *Annales des Ponts et Chaussées*). They worked within widely different institutional bases in public administrations and technical "corps," and primarily sought to solve microeconomic problems – such as the pricing of public works – that were entirely foreign to the purpose of economics as stated by the mainstream: In fact, they remained relatively inconspicuous to the rest of the "field." As Porter suggests, economics was more part of public engineering than engineering was part of economics (at least during that period). ¹⁰⁵

Assessing the intellectual nature of French economics at the turn of the twentieth century is thus a delicate matter. Although the home of many original currents (for instance, several brands of socialism), and major scientific innovations (Walras's general equilibrium conceptualization), France never produced a distinctively French school of economic thought with a coherence comparable to its British and German counterparts during the same period. By and large, French economics at the turn of the century conceived of itself more as a discourse on an ever-changing social reality than as a science in search for universal laws. As such, it had to be guided by considerations of a different nature – morality, justice, or the pursuit of a political ideal.

Economics as a moral and political science

Now we still have to consider whether the institutional and intellectual fragmentation described above amounted to a general "weakness" in the field as a whole and the difficulty of economists to intervene in the broader society. The conclusion on this point is mixed. On the one hand, a scholarly community had definitely emerged by the end of the nineteenth century. Indeed, the inflow of the new university professors, as well as the reinforcement of economics teaching in the grandes écoles, caused a quite notable expansion of the stock of people writing in economics. This accelerated the process of autonomization of the discipline from the Idéologues' model of political polemics. On the one hand, these new members, based in the universities, played an important role in promoting a more scholarly type of economics. 106 This process was accomplished with the creation of the Revue d'Économie Politique in 1887, a professors' review, conceived by its founders as a more academic and less dogmatic alternative to the Journal des Économistes. The Revue was deliberately open to a wider variety of approaches, including foreign scientific achievements. 107

The new patterns of recruitment also fostered important changes in the ideological composition of the field, which started to shift away from the *libéral* dogma. A number of university professors and a significant proportion of the state engineers gathered in the *Society for Social Economics*, a body devoted to the scientific investigation of social problems. Politically, these new generations could be described as "moderate republicans," rejecting the liberal ideology in favor of more protectionist and interventionist positions; as their German colleagues, many were sensitive to the "question ouvrière" and took part in the elaboration of the social laws at the turn of the century.

This, however, suggests that economic discourse – in spite of a substantial move away from the *libéral* proselytism of earlier periods – still remained more overtly wedded to political ideals in late nineteenthcentury France than in other countries. Thus, in spite of a limited move toward academic professionalization, French economists disposed of no umbrella organization to speak of – rather, each "current" was organized separately, often on the basis of political inclinations. The principal authorities of the period, be they libéral or moderate socialists, continued to be deeply preoccupied with moral questions and remained suspicious of the scientific pretensions of economics - as they were expressed, for instance, on the other side of the channel. Hence, Charles Gide, who, together with his younger colleague Charles Rist wrote a very successful History of Economic Doctrines, often judged economic theories on the basis of his own social leanings (he was a major figure in the cooperative movement). The prevalence of such attitudes has led Levan-Lemesle to conclude that "French economists [were] the representatives of a moral science, never separated from social life, and tightly linked to political interests." 110

The contrast with Britain on this point is particularly interesting, because there institutionalization under a strong scientific form occurred *in spite* of a similarly long history of political agitation by economists. In England, however, such activities were highly legitimized within the political culture – as was the scientific program of the marginalists and early neo-classical economists, which benefited from its association with the main institutions of power in British society, namely Oxbridge. By contrast, in France, economic discourse during the nineteenth century lacked the support from the key legitimating institution

in the sector of higher education, the French State. When it finally secured it, it was under a truncated form, where economics was not sponsored as a separate domain of knowledge, but as a subordinate element in a curriculum dominated by law. This institutional location further reinforced the already prevalent conception that economics was an eminently moral and political subject, and prevented the assertion of a strong scientific program. In fact, one would have to wait until after World War II for the mathematical engineer-economist tradition to rise to the fore – thanks, this time, to the explicit patronage of the state. ¹¹¹

The United States: The rise of a professional model

The case of the United States represents yet another variation on the role of politics in the formation of the identity of a national profession of economists. In this country, academic economics emerged, like in Britain, out of the classical curriculum – that is, moral philosophy and history. Yet much more than in England, academic curricula in pre-Civil War America were "still dominated by theology" and economics was merely regarded as a minor branch of moral philosophy. Teaching in political economy had been introduced starting in 1817¹¹³ in the northeastern colleges, but it was controlled by clergymen until almost the end of the nineteenth century. The first economics textbooks published in America were also written by clerics, and as such they were deeply reflective of these religious ties. Capitalist activities and the laws of political economy were thought to be in harmony with the laws of God and to enter the larger purpose of moral elevation.

The new universities and the rise of economics

American economic discourse at the time was fragmented and certainly not integrated around a fairly unitary scheme, like the British was. Home-grown theory was virtually non-existent. The small size and geographical dispersion of American colleges during the early part of the nineteenth century was certainly the major factor in this localism and "sectionalism" of American academic culture, in economics as in every other field. It is only with the university revolution that American scholarship really started raising its profile. After the 1860s, two major sets of events – the emergence of public establishments of higher education after the passage of the land grant legisla-

tion in 1862, and the foundation, by wealthy philanthropists, of a series of munificently endowed academic institutions – profoundly transformed the relationship between higher education and society.

In contrast with continental systems of higher education, which relied on a centralizing state (France, Germany) or powerful academic guilds (England) to define the form and content of academic institutions, in the United States the "market" came to occupy a central place. The graduate school first, and later the professional school, became the cornerstones of a culture of specialization directed toward identifiable audiences, and the production of socially "useful" knowledge. In this cultural context, modern subjects (such as the social sciences) came to be regarded as vehicles of the new spirit embodied by the university revolution. They offered "secular substitutes for religion," and social scientists were seen by university administrators as the agents of moral progress, who would both provide leadership for the solution of social problems and serve to establish the reputation of their institution.

Between 1870 and 1910, the number of students at American universities and colleges quadrupled. In this rapidly expanding system, political economy was able to secure a niche relatively easily. It became a more secular subject, and a subject of specialized study. The number of teaching posts increased correspondingly, so that by the 1890s, there were 12 institutions delivering 95 PhDs in political economy. 120

The process of professionalization in American economics went extremely fast. It drew its strength from the new research-oriented universities and the emerging elite of full-time professors. Until the 1880s, social-scientific thought in America had been dominated by the American Social Science Association (ASSA), formed in 1865 "by a group of New England gentlemen educators and men of affairs who wished to study and find solutions to various social problems." ¹²¹ Discourse on such issues was then understood to be the domain of, on the one hand, traditional professional specialties in search for modernization, such as lawyers, doctors, and educators, and, on the other hand, businessmen looking for social prestige and recognition. ¹²²

With the rise of the research-oriented university in the last quarter of the century, this model of knowledge organization came to face the growing challenge of the younger generations of practitioners who were operating from purely academic institutional bases, and it began to decay rapidly. In contrast with their European counterparts, whose elite situation was a "given," grounded in history, class, and (for continental Europe) state patronage, American university professors had to conquer their own legitimacy and social standing in a culture that had never been strongly deferential to intellectual authority, ¹²³ and they relied on professionalization in order to accomplish that goal. The specialization of disciplines and fields took place earlier than in Europe, and was pushed to a greater extent.

The creation of specialized disciplinary associations such as the American Historical Association (1884) and the American Economic Association (1885), from a split of the ASSA, thus marked the growing influence of a new elite based in the occupational framework of the universities and the advent of a different, more scholarly, approach to the nature and role of the social sciences: While still retaining the reform orientation of the ASSA (a point that is discussed at some length later), these new organizations were also strongly committed to "giving institutional structure to a community of inquiry that was rooted deeply in the academic world." 124 The yearly meetings of the American Economic Association soon provided a forum for the discussion of academic papers. Professional publications, often linked to particular universities, followed almost immediately: in 1886, Charles Dunbar at Harvard launched the Quarterly Journal of Economics and, in 1892, John Laughlin at Chicago founded the Journal of Political Economy. In 1911, the American Economic Association started an in-house journal, the American Economic Review.

Politics and methods in America

American economics at the turn of the century was still a very diverse field, shaped by a variety of European influences, and by a decentralized university system. A regional pattern of thought was quite obvious, with the West being the stronghold of German influence, here labeled "institutionalism," and the Northeast being closer to the British tradition. Political divisions were also important. Like their continental European counterparts, American economists in the last quarter of the nineteenth century were a fairly politicized group whose members sought to reform society by mobilizing popular support for their views and promoting the education of mass audiences. The conservative *Political Economy Club* was essentially a free-trade clique. And the *American Economic Association* adopted at its inaugural meeting a progressive platform whose ambitions resembled closely those of the

Verein for German social policy. Not only did it proclaim that the role of economic science was to seek the rational resolution of the pressing social problems of the day, but many of its founders, especially those who had studied in Germany favored the use of government regulation to further this goal.¹²⁵

What is most distinctive of the American context, however, is the rapidity with which politics became a controversial issue among the community of economists, and prompted an intellectual and professional "backlash" of wide-ranging consequence. First, economists gradually abandoned the institutionalist model of thought and grew, instead, increasingly accepting of the analytical framework of marginalism, as it had emerged in England. Second, in the words of Mary Furner, this intellectual transformation was accompanied by a comprehensive transformation of their role in society, from "advocacy" to "objectivity." ¹²⁶

As in the other three cases, we must understand these patterns in reference to the broader social environment within which the production of economic knowledge was carried out in the American context. In the absence of a tradition of autonomous academic guilds, or the support of a strong state, political involvement in the United States faced the hostility of university funders and administrators, as well as the skepticism of the general public. The captains of industry who made up the first group were unlikely to regard working-class sympathies, or even positions favorable to state intervention, with a benevolent eye. On the other hand, in a society, which never succeeded in establishing a socialist movement, the general population was not so ready to accept radical views either. And in contrast with Germany, the moral authority of intellectuals was not firmly established in America: it was much less seen as a structural property of certain social strata or groups than as a position, which had to be earned through impeccable behavior and hard work. In the scholarly context of the end of the nineteenth century, this meant the removal of open politics from the realm of all disciplinary enterprises.

Even within the community of economists, reformist agitation was not all that welcome. In contrast with the German *Verein* and even more the French *Société d'Économie Politique*, which represented currents that were dominant, if not hegemonic, in their respective countries, the *AEA* at the turn of the century had to unite a much more diverse and fragmented discursive field. The fact that conservative scholars (e.g.,

Laughlin, Taussig) had refrained from joining the *American Economic Association* in its early years constituted a failure from a professional point of view, and seemed to belie the higher moral ground, which economists sought to occupy. Although the organization conceived itself as a tool for human betterment, it also saw itself as a national umbrella, whose credibility could be seriously damaged by the public display of disagreements among its members. In contrast with popular education, a positivist stance rooted in the affirmation of economics' scientific status seemed to represent a much "more promising strategy to influence policy." ¹²⁷ This situation prompted the expulsion of all controversial references from the *AEA*'s platform. From about 1888 on, the latter defined itself exclusively in scientific terms, and adopted a low profile on public policy issues.

In many ways, this particular political context also explains some of the intellectual characteristics of American "institutionalist" thought as it developed in the first part of the twentieth century. First, the uncomfortable position of politics in academia increasingly drew American economists away from historical analysis, which was then associated with socialist views. Conversely, the fact that the marginal approach did not imply a particular political outlook, or a set of policy preferences, facilitated its acceptance in an American context in search for professional legitimacy¹²⁸ – especially among the younger generations who had to create a position for themselves. Its a-historical framework also seemed to fit well the country's prevailing cultural ideology, deeply anchored among the American intellectual elite – the belief in "American exceptionalism" or the widely shared vision of a society exempt from class conflict, evolving in a "constant dynamic recreation of the liberal order." ¹²⁹

The gradual evolution of institutionalist thought in this country exemplifies quite well the ambiguity of the relationship between American economists and history, and the redefinition that had been operated upon historicism as it traveled to the United States. In fact, for many American economists, historicism as it was conceived in Germany did not meet the criterion of rigor and science. Rather, it was often understood as mere "history" – a separate discipline. Even Veblen's review of Schmoller's *Grundrisse* is sharply critical of the German professor's failure to produce a viable economic theory, and of his lack of a "scientific attitude" in his treatment of Germany's current economic problems. As Ross points out, "one striking feature [of American institutionalism] was that, (in contrast with its German precursor), for

the most part it did not study institutions" and thus did not fully engage with history. Rather, in their attempt to reconcile their need for scientific legitimacy with their awareness of social change, American economists often found themselves in a position of intellectual compromise between the different sides of the German *Methodenstreit*. Of the earlier generations, many "liberal historicists" (such as Seligman) also embraced marginalism, and later periods saw some spectacular conversions of institutionalists to neoclassical orthodoxy (such as that of J. B. Clark). Yonay has convincingly shown that in their exchange with neoclassical economics during the interwar, many American "institutionalists" were careful to use a scientistic rhetoric and to present themselves as the true heirs of Alfred Marshall, and that the boundaries between the different "schools" were far from clear-cut. 133

Beyond the theoretical compromise with marginalism, the other characteristic evolution of American economics during the period under consideration was the movement toward applied, quantitative empiricism and the attempt to base economic theories on sound statistical measurement of economic variables and causalities. In fact, it is quite remarkable that much of American institutionalism (for instance, in the version promoted by one of its chief architects, Wesley Clair Mitchell) remains more closely associated with quantitative and statistical research than with historical work.¹³⁴ In the words of Mitchell,

Our best hope for the future lies in the extension to social organization of the methods that we already employ in our most progressive fields of effort. In science and in industry... we do not wait for catastrophes to force new ways upon us.... We rely, and with success, upon quantitative analysis to point the way; and we advance because we are constantly improving and applying such analysis. ¹³⁵

In many ways, this positivist-empiricist approach constituted a natural compromise between social demands for "objectivity" and "usefulness," the intellectual requirements of "science" in a competitive disciplinary context, and the economists' original mission as agents of societal progress. It offered a common intellectual ground where the methodological battles between institutionalism and orthodox theory could be settled, and where social reform inclinations could be translated into practical, "a-political" knowledge based in the close observation of facts. It also enabled American economists to assert their relevance to a large variety of key audiences outside of academia: quantitative analysis attracted the wide support of philanthropic organizations, corporations, and political institutions alike, and experienced

considerable institutional success as it became, after the war, embodied in a new generation of research organizations that were then imitated all around the world. 136

The progressive years: Economists, advocacy, and expertise

As in the other three cases, the evolution of American economics at the turn of the twentieth century thus confirms the profound interdependence of intellectual and professional attitudes. The intellectual evolution of the field was profoundly shaped by the way in which relevant audiences came to envision the proper role of academics, both in their scholarly pursuits and in their interactions with society. In contrast with their German and French counterparts, who embraced a broader social purpose, in the United States the economists' historical mission to advance societal progress came to be vested in more narrowly defined professional roles.

We should understand this professionalizing drive in American social science in the context, first, of a search for insulation from the general public and political controversy, and second, in relation to the peculiar structure of political and administrative institutions in this country. As pointed out earlier, the tight links between American universities and business - through the external control of boards of trustees - made it difficult for professors to hold progressive positions. The "academic freedom" cases of the 1890s - several of which involved pursuits against renowned economists – "contributed to the gradual narrowing of the range of dissent that seemed safe for professional social scientists.... Direct appeal to the public on controversial social questions was retained as a theoretical right, but economists were expected to channel most of their efforts through government agencies or private organizations where scholars could serve inconspicuously as technical experts, after the political decisions had been made, rather than as reformers with a new vision of society." 137

This brings us to a second important point, namely the fact that the administrative structure of the American government played a very important role in creating an institutional "niche" for economists. During the last quarter of the nineteenth century, university research in America became increasingly tied to demands of business and the government (both local and federal), and economics was no exception. This pattern accelerated considerably during the so-called "Progres-

sive Era" (mid-1880s-1914), a period marked by administrative rationalization and the introduction of scientific methods into government. The Progressive years saw the first important movement of incorporation of economists as experts to various public administrations as the government engaged in a deliberate attempt to break away from political patronage in the civil service and "remove various economic and social problems from the political arena." ¹³⁸ In the absence of a separate tradition of civil service training, the establishment of a set of independent regulatory commissions (e.g., on interstate commerce (1887), immigration, industrial relations, tariffs, trade), as well as the creation of federal institutions for the organization of data gathering, ¹³⁹ came to rely extensively on academic institutions and the new professional associations for expertise and guidance. A large number of academic economists took up temporary positions in such organizations, which also served as important training grounds for the younger generations of researchers. Harvard conservative professor F.W. Taussig and the institutionalist economist John R. Commons are among the most prominent examples of these patterns of administrative incorporation of academic knowledge. The former did extensive work for the Massachusetts Commission on Taxation and became chairman of the Tariff Commission. 140 The institutionalist economist John R. Commons worked for the Bureau of Labor Statistics and the independent U.S. Industrial Commission before taking up a position at the University of Wisconsin. During the term of the Progressive Party in Wisconsin (1900–1914), he – as well as other academics involved in the same "university-state alliance" – then had a prominent role as an expert for the local government. According to Dorfman, his career helped legitimate the economists' association with such "nonpartisan, but progressive" enterprises. 141

This early and formal acknowledgment, by political institutions, of the administrative "usefulness" of economists encouraged academic institutions in the United States to professionalize along technocratic lines, and embrace the attitudes that have been elsewhere characteristic of the civil service. Through the demand for expertise placed on the academic sector, American political institutions thus had a powerful effect on the structuration of the research field, on its substantive orientation, and on the construction of distinctively professional roles and attitudes among American economists.

Understanding cross-national differences in the institutionalization of economics

The culture and institutional make-up of the national polity plays a critical role in shaping the context in which groups of individuals develop, understand, and exercise their knowledge. The historical eclipse of certain intellectual traditions in economics (for instance, the German historical school, or the various French currents), which are nearly forgotten today, should not lead us to think that such countries were intellectual and institutional deserts prior to their (sometimes very relative) conversion to modern neoclassical economics - which seems to prevail today. In fact, I hope to have shown that they constituted very important, and original, centers of economic knowledge production and diffusion, and that they did so for very specific reasons. Contrary to frequent assumptions in the traditional sociology of the professions, which are used to see the rise of professions as a "private" rather than a "public" process, national political institutions always play a critical role in the organization and intellectual orientation of expert knowledge - not only through explicit policies in education, research, or civil service recruitment, but also through differential modes of incorporation of expertise into policy and administration, the definition of the limits of political involvement and the promotion of what Dobbin calls "conceptions of order." 142

Forms of entrenchment

A comparison of the four cases under investigation suggests that the entrenchment of the economics profession was profoundly shaped by the relationship of its practitioners to the larger political institutions and culture of their country. At a first, general, level of analysis is the opposition between "statist" and "liberal" political traditions, that is, political systems organized around a rather autonomous state and a fairly well institutionalized bureaucracy, and systems with a weaker bureaucratic apparatus and a greater susceptibility to outside influences. Between these two political cultures, the social purposes ascribed to the discipline differ greatly. In continental Europe, the institutionalization of economics was orchestrated by the state in the process of its own construction. In both Germany and France, the nineteenth-century state purposefully used education (both mass and higher) as a means to create a more unified polity, ¹⁴⁴ and political economy was integrated into the scheme as an element in the training of political

elites. Characteristically, political economy is institutionally tied to law – the central element in the training of a separate "government profession" – in continental Europe, as opposed to moral philosophy (or history) in both Britain and the United States. In Germany, a primitive form of "political economy" gets entrenched in the system quite early, and evolves in a tight relationship with state power. It consolidates almost continuously at all steps of university expansion during the nineteenth century. At the eve of World War I, German economists are thus numerous and well established, both as scholars and as public figures. They have strong links to the institution of the state, although they often remain at a certain distance from it, as their legitimacy relies on a non-partisan stance, which prevents a too direct involvement in politics.

In France, the development of economics in the nineteenth century appears a more contested affair notably because of close ties to political agitation. The ideological nature of economic discourse in this country prevents the development of a coherent institutional base before the field starts to mature as an autonomous intellectual enterprise. Furthermore, the internal division of the educational system between two separate tracks (the *grandes écoles* and the university) also contributes to the fact that, at the end of our period, the country still exhibits a mixed and weak foundation for economics — especially when compared to other industrial nations. This situation, however, does not mean that a certain pattern in the organization of economic knowledge is not readily identifiable. Throughout the period a "statist" model clearly rises to prominence, whereby the discipline is gradually promoted in order to fit the needs of a bureaucratic system.

In the Anglo-Saxon countries, the rise of economics takes place as a relatively private endeavor from groups of individuals in civil society and educational institutions, with little state intervention. But while in the United States economics is able to build its own niche relatively easily in a higher education context still under construction, in England the discipline has to fight its way within an already entrenched system and build alliances with more established disciplines – for instance, mathematics. There, organized economic discourse has also an old intellectual tradition in civil society, which has preceded academic institutionalization. The existence of an active public sphere in economics where ideas circulate more through informal channels than on the basis of formal appointments and functions provides a quite efficient outlet for the production and dissemination of economic

knowledge and ideas. As a result, in a country where the state appears throughout the period profoundly reluctant to get involved in the higher education system, explicit demands from potential users of economic knowledge (civil service and business) remain conspicuously limited. When they do arise, as in the late nineteenth century, they are often suspicious of existing forms of economics, to which they oppose the more tangible advantages of a truly "commercial" education. The professionalization of economics in England comes about not as a consequence of enduring institutional strength, as in Germany, but instead results from the activism of a group of scientific entrepreneurs involved in a path-breaking intellectual enterprise – the construction of modern, "neoclassical economics."

By contrast, in the United States, the intellectual ascent of economics does not happen until the end of the nineteenth century and it is simultaneous with the massive expansion of both higher education and administrative capacity. Incorporation of the young "discipline" into the newly created universities thus becomes a quite natural move. The subsequent development of economic knowledge in America exemplifies a case of professional expansion organized around academic credentials, closely connected to key social demands outside of academia.

Intellectual trajectories

Similar connections may also be observed on an intellectual level. The patterns, however, seem far more complex in this case, since intellectual products are obviously exchanged internationally and fluctuate more easily than institutional models. In 1914, approaches to economics are still quite heterogeneous, not only across, but also within nations. Yet there is usually a "dominant" view that characterizes each "national" field in broad traits: it is quite noteworthy, for instance, that economists in the four countries understood the role of the various institutions of the economy in very different ways – and the same is true of their conception of the goals and mission of political economy as a discipline. Thus, in their general outlook the German mandarins vested most of the economic authority in the state as the ultimate source of economic order, 145 while the British economists looked at the market for the same purpose. If we believe the opinion surveys that have been conducted in recent years, these patterns still largely hold today.

In both our continental European countries, the state not only provided the institutional framework within which economics was to develop later - and in doing so it constrained the range of intellectual forms that were to emerge - but it also consciously manipulated economic appointments for political reasons. Thus, the very success of the historical school in Germany, and the emergence of the engineereconomist tradition in France, were partly produced by centralized educational policies. In the United States and Britain, by contrast, the subject of economics was shaped more significantly by the influence of outside elites on the policies and design of the universities, although such influences might play out in different ways. In Britain, socially validated intellectual models pushed economics toward scientism. In the United States, university trustees and other institutions (government, foundations) helped bring about the scientization of economics by their distrust of the political underpinnings of academic knowledge and their conception of social science as "objective" expertise.

Forms of action

A third area of interest lies in the forms of action used by economists in the four countries. I have pointed out that in the period under investigation, economists in all nations shared quite similar concerns with social policy and reform, and often sought to act upon those concerns. What is interesting is that they ended up framing their role in quite different ways. Thus the Germans spoke from the authoritative position of pure scholarship; the French, from their connections with legitimate political groupings and, progressively, from their association with the higher ranks of the state administration; the British, from their belonging to a social elite educated in the most prestigious centers of learning; the Americans, from claims to expertise rooted in a powerful university basis and, increasingly, in quantitative analysis. As above, I shall argue that the relationship of economists to policy in the different countries can be understood largely from the organization of the polity in those nations. The administrative elitism in Germany and France, for instance, brought economists and economic knowledge in close contact with the state, by associating the discipline to generalist civil service training - a pattern that was virtually absent from the Anglo-Saxon cases.

On the other hand, the fact that none of the two "liberal" polities exhibited a strong bureaucratic component did not prevent connec-

tions between economists and the state to take place at various levels, as we have seen. Still, important differences in the relative "openness" of administrative institutions between the two countries profoundly affected the nature of such interactions. In Britain the legitimacy of economists within the larger public and government spheres continued to rest on traditional institutions of power in British society (i.e., the Oxbridge networks), rather than on formal institutions of expertise. The rather closed (both organizationally and socially) structure of the central administrative limited the role economists could play as official experts, and thus limited the move toward full-fledged professionalization, but it did not go as far as preventing British economists from being quite effective still in conveying their message.¹⁴⁶ In the United States, by contrast, the fragmentation and permeability of such institutions, the absence of an elite civil service tradition, as well as the differentiation among levels of local, state, and federal politics, enabled a fairly easy and extensive penetration. In addition, bureaucratic rationalization in the American political context strongly favored a technical and scientific approach to the study of economic and social problems as a way of de-politicizing the field of policy-making.

The processes of early institutionalization described in the preceding pages are particularly interesting because they suggest that economic knowledge fields, like the industrial policy fields studied by Dobbin, develop along fairly coherent national trajectories that are not easily reversed. Moreover, not only professional forms, but also intellectual patterns exhibit a strong dependence on national institutional structures.

I have shown elsewhere that the patterns emerging at the turn of the century defined the institutional framework within which both economic "experts" and economic "knowledge" were to be produced in the future in each country. In spite of important transformations, many of the organizational and intellectual characteristics outlined in the preceding pages are still true today. While it is well beyond the scope of this article to detail the manner in which present-day patterns are consistent with their history, it seems nevertheless important to underline the potential consequences of such lasting traditions of economic knowledge production on national understandings about economic organization. In many ways, analyzing how the economics profession came to take its modern shape and intellectual outlook provides a unique point of entry into national cognitive frames for thinking about, and acting upon, the economy. Overall, this should help us

better understand the nature of economic "culture" in different countries.

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Notes

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- 2. See, for instance (among many fine examples) William W. Barber, editor, Breaking the Academic Mold: Economics and American Higher Learning in the 19th Century (New York: Transaction Publishers, 1993); A.W. Bob Coats, The Sociology and Professionalization of Economics. British and American Economic Essays Vol. II (London, New York: Routledge, 1993) on the United States and Great Britain; Norbert Waszek, editor, Die Institutionalisierung der Nationalökonomie an Deutschen Universitäten. Zur Erinnerung an Klaus Hennings (1937–1986) (St Katherinen, Scripta Mercura Verlag, 1988) on Germany; Keith Tribe and Alon Kadish, editor, The Market for Political Economy: The Advent of Economics in British University Culture, 1850-1905 (London: Routledge, 1993) and Roger Middleton, Charlatans or Saviours? Economists and the British Economy from Marshall to Meade (Cheltenham: Edward Elgar, 1998) on Great Britain; Chuhei Sugiyama, and Hiroshi Mizuta, editors, Enlightenment and Beyond: Political Economy Comes to Japan (Tokyo University Press, 1988) on Japan; Sarah Babb, The Evolution of Economic Expertise in a Developing Country: Mexican Economics, 1929-1998 (unpublished dissertation, Northwestern University, 1998) on

- Mexico. Also see Wolf Lepenies's comparative study of the emergence of sociology in *Between Literature and Science: The Rise of Sociology* (Cambridge: Cambridge University Press, 1988).
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- Frank Dobbin, Forging Industrial Policy. The United States, Britain and France in the Railway Age (Cambridge and New York: Cambridge University Press, 1994).
- 5. Margaret Weir and Theda Skocpol, "State Structures and the Possibilities for Keynesian Responses to the Great Depression in Sweden, Britain, and the United States," in P. Evans, D. Rueschemeyer, and T. Skocpol, editors, Bringing the State Back In (Cambridge University Press, 1985); Peter A. Hall, editor, The Political Power of Economic Ideas. Keynesianism Across Nations (Harvard University Press, 1989); Richard Whitley, Peter Wagner, and Björn Wittrock, editors, Discourses on Society: The Shaping of the Social Sciences Disciplines (Dordrecht, Boston: Kluwer Academic Publishers, 1991); Peter Wagner et al., editors, Social Sciences and Modern States: National Experiences and Theoretical Crossroads (Cambridge and New York: Cambridge University Press, 1991); Dietrich Rueschemeyer and Theda Skocpol, editors, States, Social Knowledge, and the Origins of Modern Social Policies (Princeton University Press, 1996).
- 6. Andrew Abbott, The System of Professions: An Essay in the Division of Expert Labor (Chicago: University of Chicago Press, 1988); Randall Collins, "Changing Conceptions in the Sociology of Professions," in R. Torstendahl and M. Burrage, editors, The Formation of Professions: Knowledge, State and Strategy (Newbury Park: Sage, 1990); Magali Sarfatti Larson, The Rise of Professionalism: A Sociological Analysis (Berkeley: University of California Press, 1977); Björn Wittrock and Peter Wagner, "Social Science and the Building of the Western Welfare State: Toward a Comparison of Statist and Non-Statist Societies," 90–113, in Dietrich Rueschmeyer and Theda Skocpol, editors, States, Social Knowledge.
- 7. See Louis Dumont, From Mandeville to Marx. The Genesis and Triumph of Economic Ideology (Chicago: University of Chicago Press, 1977). Before Smith, the mercantilist tradition regarded economic exchange purely as a means to accrue political power in contradictory relationships. With Smith, exchange becomes beneficial to all parties and thus a source of (political) harmony.
- Joseph Schumpeter, History of Economic Analysis (New York: Oxford University Press, 1954), 380–381.
- 9. Keith Tribe, Governing Economy: the Reformation of German Economic Discourse, 1750–1840 (Cambridge, Cambridge University Press, 1988); David Lindenfeld, The Practical Imagination: The German Sciences of the State in the Nineteenth Century (Chicago: University of Chicago Press, 1997).
- Burton Bledstein, The Culture of Professionalism. The Middle Class and the Development of Higher Education in America (New York: W.W. Norton and Company, 1976);
 Dorothy Ross, The Origins of American Social Science. Ideas in Context (Cambridge & New York: Cambridge University Press, 1979).
- 11. Klaus Hennings, "Die Institutionalisiering der Nationalökonomie an Deutschen Universitäten," 43–54, in Norbert Waszek, editor, *Die Institutionalisierung der Nationalökonomie an Deutschen Universitäten*, 43.
- 12. Germany had a pioneering role in the creation of the first scholarly journals in the field. In 1835, K. H. Rau founded the *Archiv der politischen Oekonomie und Polizeiwissenschaft*; and by 1871, Germany counted three major economics journals,

- which still survive to this day. See Harald Hagemann, "Learned Journals and the Professionalization of Economics: The German Language Area," *Economic Notes by Monte Paschi di Siena* 20/1 (1996): 33–57.
- 13. Klaus Hennings, "Die Institutionalisierung," 51-52.
- 14. Stigler remarks (about American economics): "There was no training center at home: until World War I at least a year in Germany was the proper background for a proper young economist," George Stigler, *Essays in the History of Economics* (Chicago: University of Chicago Press), 46.
- 15. Keith Tribe, Governing Economy, 3.
- 16. Klaus Hennings, "Die Institutionalisierung," 44.
- 17. As Backhaus points out, "the Cameralists (...) owe their name to their main activity: they had access to the chambers of the rulers whom they assisted with advice on economic policy." See p. 342 in Jürgen G. Backhuas, "The German Economic Tradition: From Cameralism to the Verein für Sozialpolitik," 329–356 in Manuela Albertone and Alberto Masoero, *Political Economy and National Realities* (Torino, Italy: Fondazione Luigi Einaudi, 1994).
- 18. Joseph Schumpeter, History, 209. David Lindenfeld, Practical Imagination.
- 19. Klaus Hennings, "Die Institutionalisierung"; David Lindenfeld, *Practical Imagination*
- 20. Henri de Saint Marc, Étude sur l'enseignement de l'économie politique dans les universités d'Allemagne et d'Autriche (Paris, Armand Colin, 1892).
- 21. Keith Tribe, Governing Economy.
- 22. Jürgen Backhaus, "The German Economic Tradition," 355.
- 23. Klaus Hennings, "Die Institutionalisierung," 48.
- Georg G. Iggers, The German Conception of History. The National Tradition of Historical Thought from Herder to the Present (Middletown: Wesleyan University Press, 1968).
- 25. Harald Hagemann, "Learned Journals," 85.
- Theodore Ziolkowski, German Romanticism and Its Institutions (Princeton: Princeton University Press, 1989), 252.
- 27. One would have to wait until the 1890s for Schmoller to establish a certain distance between economics and the other *Geisteswissenschaften* without, however, relaxing the methodological position of the primacy of history. See David Lindenfeld, *Practical Imagination*, 236. Also Knut Wolfgang Nörr, Bertram Schefold, and Friedrich Tenbruck, editors, *Geisteswissenschaften zwischen Kaiserreich und Republik: zur Entwicklung von Nationalökonomie, Rechtswissenschaft und Sozialwissenschaft im 20. Jahrhundert* (Stuttgart: Franz Steiner, 1994).
- Georg Iggers, The German Conception of History, 24. Also see Fritz Ringer, The Decline of the German Mandarins. The German Academic Community, 1890–1933 (Cambridge: Harvard University Press, 1969); Konrad Jarausch, Students, Society and Politics in Imperial Germany. The Rise of Academic Illiberalism (Princeton University Press, 1982).
- 29. E. Streissler, "Menger, Böhm-Bawerk and Wieser: The Origins of the Austrian School," 151–89 in K. Hennings and W. Samuels, editors, Neoclassical Economic Theory, 1870–1930 (Kluwer, 1990) cited in Yuval Yonay, The Struggle Over the Soul of Economics: Institutionalist and Neoclassical Economists in America Between the Wars (Princeton: Princeton University Press, 1998), 39. Also see Berhard vom Brocke, "Hochschul- und Wissenschaftspolitik in Preussen und im Deutschen Kaiserreich 1882–1907: das "System Althoff," 9–118 in Peter Baumgart, editors, Bildungspolitik in Preussen zur Zeit des Kaiserreichs (Stuttgart: Klett-Cotta, 1980).

- 30. Konrad Jarausch, Students, Society and Politics in Imperial Germany, 197.
- 31. Eugen von Philippovitch, "The Verein für Sozialpolitiek," *Quarterly Journal of Economics* 5/2 (1891): 220–237. Also Gustav Cohn, "Political Economy in Germany," *Economic Journal* 15 (60) (December (1905): 600–608.
- 32. Eugen von Philippovitch, "The Verein für Sozialpolitik," 228. The main topics to be investigated by the organization were: "factory legislation, freedom for the workman in his contract with his employer, factory inspection, supervision of banking and insurance, better dwellings for the poor, public investigations on the social question."
- 33. Jacob Viner, "The Economist in History," *American Economic Review* 53/2 (1963): 1–22, see 20. The *Verein* was reorganized after the downfall of nazism.
- 34. It is quite remarkable that even the title of this American association stemmed from a literal translation of the German word for economics, "Nationalökonomie."
- 35. See p. 6 in Dieter Lindenlaub, Richtungskämpfe im Verein für Sozialpolitik, Vierteljahre für Wirtschafts und Sozialgeschichte (Wiesbaden: F. Steiner, Vol. 52, Suppl., 1967).
- 36. Indeed, the relationships between the industry and the professors rapidly deteriorated. See Dieter Lindenlaub, *Richtungskämpfe*, esp. chapter 2.
- 37. Lindenfeld remarks that such characteristics of the *Verein* appear very similar to those of other episodes of a wider professionalization process in Bismarckian Germany: "One may view the *Verein* as part of the process of professionalization in Germany that reached a high point in the Bismarckian era. Contemporaries pointed out its resemblance to the Association of German jurists, which had a strong academic component and had successfully shaped much legislation since the 1860s; it also resembled more remotely the Association of German Engineers, which similarly stood for engineers in the service of high-minded ideals; the ethical component was common to all three groups. In the cases of both lawyers and engineers, however, separate organizations soon arose to advocate their more material interests. In the case of economists, separation of self-interest from such ethical identification did not occur: the *Verein* became a forum to promote both their social mission and their professional role." (David Lindenfeld, *Practical Imagination*, 232).
- 38. This explains their famous nickname: "Kathedersozialisten" (socialists of the chair). The practice of using the classroom as a tribune for preaching and propaganda stirred major controversies among the *Verein*'s members. (*Werturteilstreit*, or the dispute in value judgments.) See Jürgen Herbst, *The German Historical School in American Scholarship. A Study in the Transfer of Culture* (Ithaca: Cornell University Press, 1965), esp. 164–169.
- 39. Schumpeter notes the originality of these team-work research projects undertaken by the *Verein* to improve the factual knowledge about the economy, and remarks that they have "no equal ... as an effort of a national group of economists." (*History*, p. 800, n7). The German tradition of survey research has been studied by Anthony Obershall, *Empirical Social Research in Germany*, 1848–1914 (New York: Basic Books, 1965).
- 40. See p. 123 in Dietrich Rueschmeyer and Van Rossem, "The Verein Für Sozial-politik and the Fabian Society: A Study in the Sociology of Policy-Relevant Knowledge," 117–161 in D. Rueschemeyer and Theda Skocpol, editors, States, Social Knowledge. According to Lindenfeld, the heyday of the Kathedersozialisten's influence on the government was under the von Bülow chancellorship, 1900–1909. (David Lindenfeld, Practical Imagination).

- 41. On this point, see in particular David Lindenfeld, "The Professionalization of Applied Economics: German Counterparts to Business Administration," 213–231 in G. Cocks and K. Jarausch, editors, *German Professions, 1800–1950* (Oxford University Press, 1990).
- 42. David Lindenfeld, Practical Imagination, 256.
- 43. See Mark Blaug, Who's Who in Economics? A Biographical Dictionary of Major Economists, 3rd ed. (Northampton: Edward Elgar, 1986).
- 44. Joseph Schumpeter, History, 757.
- 45. The very first chair was occupied by Malthus, at the Training Institution of the East India Company (1805). Oxford got its first chair (the Drummond chair) in 1825; University College, London in 1828.
- 46. It should be noted, however, that there existed a significant university basis for economics in Scotland, notably at the University of Glasgow (Douglas Mair, editor, *The Scottish Contribution to Modern Economic Thought* (Aberdeen: Aberdeen University Press, 1990).
- 47. Keith Tribe and Alon Kadish, editors, The Market for Political Economy.
- 48 Ibid
- 49. Michael Sanderson, 1972, *The Universities and British Industry, 1870–1914* (London: Routledge and Kegan Paul, 1972): 191.
- Bernard Silberman, Cages of Reason. The Rise of the Rational State in France, Japan, the United States and Great Britain (Chicago: The University of Chicago Press, 1993), 394.
- Donald Winch, "Economic Knowledge and Government in Britain: Some Historical and Comparative Reflections," in M. O. Furner and B. E. Supple, editors, *The State and Economic Knowledge: The American and British Experiences* (Cambridge: Cambridge University Press, 1990): 40–70.
- 52. George Stigler, Essays, 43.
- 53. The front page of *The Economist* still reads its original motto: "First published in September 1843 to take part in 'a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress." Roger Middleton argues that the influence of journalists and popular writers is a unique characteristic of the organization of British economic knowledge, which continues to last to this day. See p. 43 in *Government Versus the Market. The Growth of the Public Sector, Economic Management and British Economic Performance, c. 1890–1979* (Cheltenham: Edward Elgar, 1996).
- 54. Founded in 1821 (and still well alive today), and dominated by businessmen and bankers. See A.W. Bob Coats, *The Sociology nd Professionalization of Economics*, in particular chapter 18.
- 55. Roger Middleton, Charlatans or Saviours?
- 56. The term "tripos," derived from the three-legged stool used formerly at disputations, designates the Honours examination system at the University of Cambridge. N.B.: The text paragraph draws heavily on Sanderson's account in *The Universities and British Industry*.
- 57. As Winch remarks, the results were mixed: "The Ecole Libre and the British Association report of 1894 were twin inspirations to Beatrice and Sidney Webb when they resolved to make an attempt to start a centre of economic teaching and research in London on the lines of that of Paris. Ironically, however, the institution that emerged was more like a business school than a training ground for budding public administrators destined to play a part in furthering the cause of bureaucratic collectivism." ("Economic Knowledge and Government in Britain," 52).

- Also see Sanderson, *The Universities and British Industry*, 192–193, and Ralf Dahrendorf, *The London School of Economics and Political Science*, 1895–1995 (Oxford University Press, 1895).
- 58. Michael Sanderson, The Universities and British Industry, 210-211.
- 59. Reba Soffer, "The Revolution in English Social Thought, 1880–1914," *American Historical Review* 75/5 (1970): 1938–1964.
- 60. This intellectual mission had been, for instance, clearly stated by John Stuart Mill in his Essays on Some Unsettled Questions of Political Economy (1844), and by nearly every prominent methodological essay afterwards. See Peter Manicas, A History and Philosophy of the Social Sciences (Basil Blackwell, 1987), 49–52.
- 61. See Philip Mirowski, *Natural Images in Economic Thought* (Cambridge University Press, 1994).
- 62. Margaret Schabas, "Mathematics and Economics in Victorian England" 67–83 in JoAnne Brown and David van Keuren, editors, *The Estate of Social Knowledge* (Baltimore: The Johns Hopkins University Press, 1991). Marginal analysis was inaugurated in the 1870s in England by work of Jevons. The other prominent name in this area is that of the Austrian Carl Menger.
- 63. Pierre Rosanvallon, Le Libéralisme économique. Histoire de l'idée de marché (Paris: Seuil, 1989): 137.
- 64. Reba Soffer, "The Revolution in English Social Thought."
- 65. As a matter of fact, the first "tripos" in Cambridge (in the 18th century) were primarily mathematical. It is only in the nineteenth century that a classical tripos, then moral sciences and natural sciences tripos were added. See Sheldon Rothblatt, *The Modern University and Its Discontents. The Fate of Newman's Legacies in Britain and America* (Cambridge University Press, 1997).
- 66. Michael Sanderson, The Universities and British Industry, 46-47.
- 67. The *British Association for the Advancement of Science* was a powerful organization with considerable political power and close connections to both the throne and the Parliament to which it provided both expert advice and lobbying activism. See Thomas Haskell, *The Emergence of Professional Social Science* (Urbana: University of Illinois Press, 1977).
- 68. Reba Soffer, *Ethics and Society in England. The Revolution in the Social Sciences,* 1870–1914 (Berkeley: University of California Press, 1978).
- Libby Schweber, The Assertion of Disciplinary Claims in Demography and Vital Statistics: France and England, 1830–1885 (Ph.D. Dissertation: Princeton University, 1996).
- 70. Economic history, however, developed on a separate and distinguished path in England. See Gerard Koot, English Historical Economics, 1870–1926. The Rise of Economic History and Mercantilism (Cambridge University Press, 1987). The other reason for the failure to institutionalize historical methods as the core of British economics is that the intellectual program of the discipline, as it was synthetized by Marshall, called not only for rigorous theory but also for a strong applied component. See P. D. Groenwegen, Soaring Eagle: Alfred Marshall, 1842–1924. (Edward Elgar, 1995).
- Reba Soffer, Ethics and Society in England, 69. Roger Middleton, Charlatans or Saviours? 108.
- 72. Margaret Schabas, "Mathematics and Economics in Victorian England."
- 73. A.W. Bob Coats, The Sociology and Professionalization of Economics, 337, n. 62.
- 74. Ibid., 343.
- 75. Margaret Schabas, "Mathematics and Economics in Victorian England."

- 76. Wolf Lepenies makes a similar point about the importance of alternative social institutions to the organization of sociology in England. Indeed, the near absence of sociology as an independent academic discipline (except at the LSE) certainly did not mean that interest in social problems was not part of the British intellectual sphere. In fact, sociological inquiry was routinely practiced by the intelligentsia through literary criticism (Between Literature and Science).
- José Harris, "Economic Knowledge and British Social Policy," 379–400 in M. O. Furner and B. E. Supple, editors, *The State and Economic Knowledge: The American and British Experiences* (Cambridge: Cambridge University Press, 1990).
- 78. Reba Soffer, Ethics and Society in England, 88.
- Harold Perkin, "The Pattern of Social Transformation in England," 207–218 in Konrad H. Jarausch, editor, The Transformation of Higher Learning, 1860–1939. Expansion, Diversification, Social Opening and Professionalization in England, Germany, Russia and the United States. (University of Chicago Press, 1983). See note 46, p. 217.
- 80. Roger Middleton, Charlatans or Saviours? 127-130.
- 81. Ibid., 133-144.
- 82. Created in 1842. See Alain Alcouffe, "The Institutionalization of Political Economy in French Universities: 1819–1896," *History of Political Economy*, 21–2 (1989): 313–344. Also Joseph Schumpeter, *History*.
- 83. Hervé Dumez, L'Économiste, la science et le pouvoir: le cas Walras (Paris: Presses Universitaires de France, 1985).
- 84. Some occasional courses in political economy also took place during this period at the Superior School of Commerce (starting in 1825), the École des Mines (1848), and the École Centrale (1856). See François Etner, "L'enseignement économique dans les grandes écoles au XIXe siècle en France," Économie et sociétés, 20/10 (October 1986).
- 85. Lucette Levan-Lesmesle, "l'Institutionalisation de l'économie politique en France," in Yves Breton and Michel Luftfalla, editors, *L'Économie Politique au XIXème siècle* (Paris: Economica, 1991): 364–365.
- 86. Bruno Ingrao and Giorgio Israel, *The Invisible Hand, Economic Equilibrium in the History of Science* (The MIT Press, 1990), 89.
- 87. Annie Vinokur, "Political Economy Between Faith and Works: Saint-Simonism and the case of Michel Chevalier," *Économies et Sociétés*, October, 20/10 (1986), 173–202. See p. 190. Also see Walras who, in his autobiography, relates his inability to obtain an authorization from the Interior Ministry to create a new political economy journal: "my authorization was refused, for the good reason that it had been decided that nobody was going to get one." Léon Walras, "Notice autobiographique," 1–15 in William Jaffé, editor, *Correspondence of Léon Walras and Related Papers* (Amsterdam, 1965, Vol. I).
- 88. Pierre Rosanvallon, L'État en France de 1789 à nos jours (Paris: Seuil, 1990), 217.
- 89. The Superior School of Commerce of Paris (École Superieure de Commerce de Paris or ESCP), 1820; The School of High Commercial Studies (École des Hautes Études Commerciales or HEC), 1881. A move towards commercial teaching, initiated by industrialists and chambers of commerce, had led to the emergence of a dozen "superior commercial schools" during the 1870s–1880s around the country. However, most of these provincial schools were aimed at providing vocational training for young apprentices. The two Parisian institutions were the only ones to address a public of post-baccalauréat graduates. See Lucette Levan-Lemesle,

- L'Enseignement de l'économie politique en France, 1860–1939 (Thèse de doctorat: Université de Paris I, 1993).
- Lucette Levan-Lemesle, "L'Institutionalisation de l'économie politique en France."
- Alain Alcouffe, "The Institutionalization of Political Economy in French Universities," 329.
- 92. The agrégation in law is a highly prestigious teaching credential, which gives access to full university professorship, and is based upon a national competitive examination.
- 93. E. James, "France" 71–81 in Les Sciences sociales dans l'enseignement supérieur: sciences économiques (Paris: UNESCO, 1954).
- 94. Silberman cites the following figures: between 1899 and 1936, 97% of the new recruits (by exam) to the Conseil d'État and Inspectorate of Finance, and 88% of those admitted to the Cour des Comptes and Diplomatic Corps came from the school, (*Cages of Reason*, 152).
- 95. Pierre Favre, "Les sciences de l'État entre déterminisme et libéralisme: Emile Boutmy (1835–1906) et la création de l'École Libre des Sciences Politiques," Revue Française de Sociologie, 22, p. 429–265 (1981). See especially p. 459–460.
- 96. François Etner, "L'enseignement économique."
- François Etner, Histoire du Calcul Économique en France (Paris: Economica, 1987).
- 98. School of Bridges and Roads.
- 99. Gaétan Pirou, Économie politique et facultés de droit (Paris: Sirey, 1937).
- 100. Hervé Dumez, Le Cas Walras.
- 101. See p. 36 in Robert B. Ekelund and Robert F. Hébert, 1999, Secret Origins of Modern Microeconomics: Dupuit and the Engineers (Chicago: University of Chicago Press, 1999).
- 102. Hervé Dumez, Le Cas Walras; Yves Breton, "Les économistes libéraux français et l'emploi des mathématiques, 1800–1914," Économies et Sociétés 20/3 (1986): 26–63.
- 103. Yves Breton, "Les économistes libéraux," 42.
- 104. Ibid., also Yves Breton, "L'économie politique et l'emploi des mathématiques en France, 1800–1940," Histoire et Mesure 7/1–2 (1992):25–52. Breton mentions the case of two disciples of Walras (Aupetit and Antonelli) during the 1900s, who repeatedly failed the agrégation and were reproached for their utilization of mathematical methods in their doctoral thesis, 35–36.
- 105. Theodore Porter, *Trust in Numbers. The Search for Objectivity in Science and Public Life* (Princeton University Press, 1995), especially Chapters 3 and 6.
- 106. Johan Heilbron, "The Tripartitie Division of the French Social Sciences," in Wagner, Wittrock and Whitley, editors, *Discourses on Society: the Shaping of the* Social Sciences Disciplines, Sociology of the editors Sciences, Vol. 15 (Dordrecht, Boston: Kluwer Academic Publishers, 1991).
- 107. Marc Pénin, "La Revue d'Économie Politique ou l'essor d'une grande devancière (1887–1936)," 157–196 in L. Marco, editor, Les Revues économiques en France (1751–1994) (Paris: L'Harmattan, 1996).
- 108. The Société d'Économie Sociale was originally created by LePlay. See Lucette Levan-Lemesle, "De la Société d'économie politique aux facultés de droit: caractères et paradoxes de l'institutionalisation de l'économie politique en France," Economies et Sociétés, October, 20–10, p. 223–237 (1986). See p. 234.
- 109. Social question. See for instance the creation of a *Société d'Économie Politique Nationale* in 1897. (Hervé Dumez, *Le Cas Walras*, 78).

- 110. This statement was made about the interwar, but it certainly applies to the earlier period. See Lucette Levan-Lemesle, *L'Enseignement de l'économie politique en France*, 732. The other reason for the closeness of economists to the political debate has to do with the nature of political recruitment: indeed, as historians have demonstrated, teachers and professors constituted a large proportion of the French political elite during the Third Republic (1871–1940) and economists were no exception. During the interwar, it would not be uncommon for economics professors to have a political career in the chamber of deputies or the senate. For the 1900–1939 period, Levan-Lemesle thus shows that out of a total number of people teaching economics of 88, 12.5% were deputies and 7% were ministers. See 728–729. Also see Christophe Charle, *La République des universitaires*, 1870–1940 (Seuil, 1994), for an assessment of the role of professors in French political life during the Third Republic.
- 111. See Marion Fourcade-Gourinchas, *The National Trajectories of Economic Knowledge: Discipline and Profession in the United States, Great Britain and France* (Unpublished Ph.D. dissertation, Harvard University, 2000).
- 112. Robert Dorfman, *The Economic Mind in American Civilization Volume I and II,* 1606–1865 (New York: The Viking Press, 1946). See p. 512.
- 113. 1817: Harvard; 1818: Columbia; 1819: Princeton. See p. 100 in Michael J. L. O'Connor, 1944, *Origins of Academic Economics in the United States* (New York: Columbia University Perss, 1944).
- 114. E.g. Reverend John McVickar, 1825, Outlines of Political Economy; Reverend Francis Weyland, 1837, Elements of Political Economy. (The principal economics textbook used in the Northeast from 1837 to the 1860s.) See Michael O'Connor, Origins of Academic Economics, 214.
- 115. See p. 349 in A.W. Bob Coats, 1993, "The Educational Revolution and the Professionalization of American Economics," 340–375 in William Barber, editor, *Breaking the Academic Mold*; William Barber, "Political Economy and the Academic Setting Before 1900: An Introduction," 3–14 in William Barber, *Breaking the Academic Mold*. Michael O'Connor, *Origins of Academic Economics*, 106.
- 116. William Barber, "Political Economy and the Academic Setting," 9.
- 117. Burton Bledstein, The Culture of Professionalism. The Middle Class and the Development of Higher Education in America (W.W. Norton and Company, 1976).
- 118. Julie Reuben, *The Making of the Modern University* (Chicago: University of Chicago Press, 1996), 157–157.
- 119. A.W. Bob Coats, "The Educational Revolution," 344.
- 120. A.W. Bob Coats, The Sociology and Professionalization of Economics, Chapter 23.
- 121. A.W. Bob Coats, "The Educational Revolution," 353.
- 122. Thomas Haskell, The Emergence of Professional Social Science, 109.
- 123. Richard Hofstadter, *Anti-intellectualism in American Life* (New York: Knopf, 1963).
- 124. Thomas Haskell, The Emergence of Professional Social Science, 183.
- 125. The original platform, which draws clearly much of its inspiration from the *Verein* and the German historical school, reads:
 - "1. We regard the state as an agency whose positive assistance is one of the indispensable conditions of human progress.
 - 2. We believe that political economy as a science is still in an early stage of development. While we appreciate the work of former economists, we look not so much to speculation as to historical and statistical study of actual conditions of economic life for the satisfactory accomplishment of that development.

- 3. We hold that the conflict of labor and capital has brought into prominence a vast number of social problems whose solution requires the united effort, each in its own sphere, of the church, of the state, and of science.
- 4. In the study of the industrial and commercial policy of governments we take no partisan attitude. We believe in a progressive development of economic conditions, which must be met by a corresponding development of legislative policy."
- Cited in Erwin R. A. Seligman, "Economics in the United States: An Historical Sketch," 122–160 in his *Essays in Economics* (New York, 1925): 148–149. Haskell argues that the AEA's commitment to reform was always quite superficial and in any case had to be attributed more to Ely's activism than to a general consensus of the members. (*The Emergence of Professional Social Science.*)
- Mary Furner, Advocacy and Objectivity. A Crisis in the Professionalization of American Social Science, 1865–1905 (Lexington: The University Press of Kentucky, 1975).
- 127. Robert Church, "Economists as Experts: the Rise of an Academic Profession in the United States, 1870–1920," in *The University in Society*, ed. Lawrence Stone, Vol. II, p. 571–609 (Princeton: Princeton University Press, 1975).
- 128. Craufurd Goodwin, "Marginalism Moves to the New World," *History of Political Economy* 4/2 (1972): 551–570.
- 129. Dorothy Ross, Origins of American Social Science, 216, makes this point.
- 130. Thornstein Veblen, "Gustav Schmoller's Economics," *Quarterly Journal of Economics* 16/1 (1901): 69–93.
- 131. Dorothy Ross, Origins of American Social Science, 417.
- 132. Ibid., 186-195 on the "liberal historicists."
- 133. Yuval Yonay, The Struggle Over the Soul of Economics. Also see "When Black Boxes Crash: Competing Ideas of What Science is in Economics, 1924–1939," Social Studies of Science, 24–1, Feb, 39–80.
- 134. Mitchell's first edition of his Business Cycles came out in 1913.
- 135. Mitchell, "Statistics and Government," quoted in Arthur Burns, "Introductory Sketch," in A. Burns, editor, *Westley Clair Mitchell. The Economic Scientist* (New York, 1925), 5.
- 136. For instance the National Bureau of Economic Research, which developed business cycle analysis. See Dorothy Ross, *Origins of American Social Science*.
- 137. Mary Furner, Advocacy and Objectivity, 257-259.
- 138. Bernard Silberman, Cages of Reason, 276.
- 139. A permanent Census Bureau, for instance, was established in 1902.
- 140. See Robert Dorfman, *The Economic Mind in American Civilization Volume III,* 1865–1918 (New York: The Viking Press, 1949), 269, 351.
- 141. Robert Dorfman, The Economic Mind in American Civilization Volume IV and V, 1918–1933 (New York: The Viking Press, 1959), 288. Also see John P. Henderson, "Political Economy and the Service of the State: The University of Wisconsin," 318–339 in William Barber, editor, Breaking the Academic Mold.
- 142. Frank Dobbin, Forging Industrial Policy.
- 143. Pierre Birnbaum and Bertrand Badie, *The Sociology of the State* (Chicago: Chicago University Press, 1983). Also Björn Wittrock and Peter Wagner, "Social Science and the Building of the Western Welfare State."
- 144. See for instance Francisco Ramirez and John Boli, "The Political Construction of Mass Schooling: European Origins and Worldwide Institutionalization," *Sociology of Education* 60 (1987): 2–17.
- 145. Fritz Ringer remarks quite appropriately that the "marriage between Geist and the

- state" was a characteristic of all of German social theory throughout the nine-teenth century. (*The Decline of German Mandarins*, 119).
- 146. This point is also made by Libby Schweber. See "Progressive Reformers, Unemployment, and the Transformation of Social Inquiry in Britain and the United States, 1880–1920s," 163–200 in Dietrich Rueschemeyer and Theda Skocpol, editors, States, Social Knowledge.
- 147. Marion Fourcade-Gourinchas, The National Trajectories of Economic Knowledge 2000