CHAPTER TWO

Private or State Owned?
The Railroad Question, 1830–1848

The opening of both new railways . . . produced a sensation felt by everyone. . . . We notice how our entire existence has been thrown forward on a new path and accelerated in new directions—how new conditions, joys, and fears await us, and how the Unknown practices its dreadful excitement, at once tempting and terrifying. . . . The railroads are . . . a providential event, giving humanity new momentum and changing the color and shape of life. A new chapter in world history begins, and our generation can be proud to have witnessed it. What changes must now enter our outlook and imagination? Even the elementary notions of time and space have become unstable. Railroads have killed space, and only time remains for us. If we only had enough money to properly kill the latter! ¹

The Rhenish émigré poet Heinrich Heine wrote this paean to railroads upon observing the opening of two Parisian lines in May 1843. How starkly it reveals both the fascination and tribulation that gripped the minds of those who first saw steam railways! Heine appreciated not only the “world-historical” significance of what he saw but also the power of money to vanquish space and propel civilization. In marveling at the achievement of accumulated capital seemingly to alter fundamental laws of nature, Heine paid tribute, if only indirectly, to those who conceived and financed railroads.

But the initial reception of railroads in Germany in the 1830s was less prophetic, less certain. Early proponents of railroad transportation, such as Friedrich List and Friedrich Harkort, failed to persuade rulers and statesmen to allocate the necessary millions to build the new iron roads.² In Prussia, fiscal conservatism, technological skepticism, and political fears among high-ranking government officials initially blocked state participation in railroad building. Financial advisers believed the colossal amount of capital demanded by railroads would overwhelm the budget of the Prussian state; technical experts deemed the innovation of steam-propelled transportation on iron rails fraught with mechanical problems and thus a money loser; and political elites
saw the financial burdens spilling over into a constitutional crisis if the state attempted to build its own railroads. Constrained by these principal considerations, the Prussian ministers balked at integrating railroads into state economic policy. The job of planning, financing, and building Prussia’s first railroads fell by default to the initiative and capital of entrepreneurs.

The position of businessmen on whether railroads should be built by the state or the private sector evolved over the period from 1830 to 1848. As we shall see, there were a number of cultural, economic, and political factors that shaped the outlook of the business class, but the differing positions were guided, not surprisingly, by pragmatism and profit. In the late 1820s and early 1830s, many Prussian businessmen were reluctant to build railroads as private business enterprises, largely because of the likelihood of financial loss but also because of mercantilistic and idealistic conceptions of the state’s role in the political economy. But in the late 1830s and 1840s businessmen, in the face of unexpected profits, accepted the position of leadership—provided that the Prussian state offer supplemental financial and legal support to the new industry. The first comprehensive Prussian Railroad Law in 1838, however, failed to provide guidelines for firm state support, provoking criticism from business circles. When new legislation in 1842 finally anchored the state’s commitment to private railroad development in the form of dividend guarantees, loans, and stock investment, thereby contributing to a boom expansion period (1842–46), businessmen embraced this brand of private ownership. Yet enthusiasm for state ownership appeared again in the crash of 1846–49, encouraging state officials to draft plans for a state railroad system in 1848. As a general rule in the Vormärz period, entrepreneurial support for state ownership was inversely proportional to the prospect of profit.

It is nonetheless ironic that the Prussian bureaucracy, which for decades demonstrated know-how and foresight in promoting economic reform, failed to initiate railroads, perhaps the most significant economic innovation of the nineteenth century. Since the time of Frederick the Great, state officials had spurned the typical Prussian merchant as too parochial to recognize the organizational and technological innovations needed for economic progress. Yet the organizational and financial abilities that businessmen demonstrated to build railroads and expand its allied industries of coal and iron augured a new era of entrepreneurial endeavor. The rise of the railroad marked the emergence of a new assertive, risk-taking business elite willing to accept the challenge of undertaking large capitalist enterprises.3

Railroads became icons of the new civil society of capital and industry. Coal, iron, steel, and the new steam-driven textile mills also played an important role in the rise of industrial society. But locomotives, railroad bridges, and railroad stations, more than coal mines and iron works, became cultural
symbols: they were dramatic visual expressions of modernity, progress, and technological power—heralds of a new society. Ludolf Camphausen, a grain merchant in Cologne, captured the centrality of railroads to entrepreneurial optimism when he announced in 1833 that Europe had entered a new epoch in its history, an age of trade and prosperity. “It is not politics or religion that will occupy the central position of this age,” he wrote, but rather “the striving of all peoples for material welfare.” And the “most effective lever of promoting material welfare . . . [is] namely: the railroads.”

The Private Era, 1825–1840

Prussian business circles were among the earliest on the Continent to perceive the utility of railroads and build them. In the same year that George Stephenson opened his Darlington-Stockton railway line (1825), and long before the first steam-driven German railway (the Bavarian Nürnberg-Fürth line, 1835), Friedrich Harkort published an essay that outlined the commercial importance of railroad construction, proclaiming it to be a “national obligation.” “The railroads,” he wrote, “will bring forth many revolutions in the commercial world. When one connects Elberfeld, Cologne, and Duisberg with Bremen, Holland’s transit dues are no more. The Rhenish West-Indian Company could consider Elberfeld a harbor once a ton can be transported to Bremen’s dockside within two days for 2 silver groschen. . . . Rhenish-Westphalian commerce would prosper with such a connection to the sea.” In 1828 Harkort founded the first German joint-stock railway company, building a 7.3-kilometer narrow-gauge, horse-drawn railway from the Himmelfürst coal mine at Überruhr to Kupferdreh and Nierenhof. Between 1825 and 1835 he indefatigably promoted railroads. As builder, publicist, and member of several Westphalian diets, Harkort was one of Europe’s first advocates of railroads.

Larger projects followed Harkort’s pioneering start. Old manufacturing and commercial centers in the Rhineland and the Ruhr demonstrated their ability to produce enough share capital to start railway projects. Businessmen sought to break the hold of English exports on both finished and raw materials by making Ruhr coal accessible to neighboring valleys, where English coal undersold German coal by half. In its annual report of 1834, the Elberfeld chamber of commerce complained that English metal buttons undersold locally made buttons in spite of import duties and local manufacturers’ advantage with raw materials. Connecting coal seams and forges and factories with inexpensive transportation would provide the stimulus to break the English hold on continental trade. Railroads, the chamber asserted, would lower the cost of Ruhr coal, allowing Prussian producers to reclaim German mar-
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Numerous committees sprang up in the 1830s in Elberfeld, Cologne, Düsseldorf, and Witten that promoted and eventually built important railways: the Düsseldorf-Elberfeld, the Berg-Mark, and the Cologne-Minden railways. Among the first entrepreneurs of railroad construction was August von der Heydt, a merchant banker from Elberfeld, whose early activity prefigured his subsequent role in railway development as Prussian trade minister after 1848.

On the left bank of the Rhine, Ludolf Camphausen, a wealthy entrepreneur active in Cologne, advocated in 1833 the construction of an “iron Rhine” from Cologne to Antwerp. For centuries Rhenish manufactures had suffered from the control of the mouth of the Rhine by the Dutch, whose tolls added to the cost of reaching the North Sea. The creation of the Kingdom of Belgium in 1830, however, offered the Prussian Rhineland an opportunity to evade the Dutch monopoly on Rhine transport. Reacting to Camphausen’s plan, David Hansemann proposed an alternate route for the Cologne-Belgium line, a longer path that would serve the wool merchant’s home city of Aachen and other Rhenish cities. In 1834–35 Camphausen and Hansemann founded rival companies to build the Rhineland-Belgium line, but they eventually merged in 1837 to become the Rhenish Railway. By the early 1840s private businessmen had formed companies to meet the three essential transportation needs in Rhineland and Westphalia: access to Belgium, a route to the Weser and the Hanseatic city of Bremen, and connections between the industrial valleys of Westphalia (Ruhr, Sieg, and Wupper) to link coal and ore producers with foundries and harbors.

Rhenish businessmen clearly set the pace in early railroad development. By 1845 over half of the country’s railroad investment was located in this one province. But bankers and merchants in the eastern provinces also constructed and operated lines by the early 1840s: Magdeburg-Leipzig (1837), Berlin-Anhalt (1839), Berlin-Stettin (1840), Berlin-Potsdam (1837), Berlin-Frankfurt (1841), and the Upper Silesian Railway (1841). By 1842 private initiative had built 587 kilometers of railway, resembling the pattern of early construction in England, France, and the United States. These railways were built without direct state involvement, although the state helped indirectly by providing franchise charters, army engineers, and the legal privilege of eminent domain.

These businessmen exhibited independence and a willingness to take risks—definitive qualities of entrepreneurship—but they were not proponents of classic laissez-faire economics. Although Adam Smith’s doctrines had taken hold in influential bureaucratic and university circles in Prussia, businessmen opted for private construction of railroads more out of necessity than ideological preference. Such notable businessmen as Friedrich Harkort, Ludolf Camphausen, and David Hansemann looked to the state for financial and
technical leadership to build railroads but were repeatedly refused. Harkort built Westphalia's first railway in 1828, but one year earlier he had petitioned for the state to build Westphalia's railways. In 1831, as deputy of the Westphalian provincial diet, he again proposed that the state build a Weser-Lippe railroad, but the plan was officially rejected in July 1832. In the 1833 essay "The Railroad Between Minden and Cologne," Harkort reluctantly advocated private initiative, "because one cannot wait for the state." Ludwig Camphausen headed the private Rhenish Railway Company, but he too exhorted the government to finance Germany's principal railway routes. In 1833 he warned: "A joint-stock company as exclusive owner would constitute a new force in the state and often conflict with the views of the government." He likened railroads to highways and canals and saw danger in private ownership of what he felt ought to be, either solely or partly, state property. Camphausen presumed both financial and technical state support for the Rhenish Railway, and he expressed bitter disappointment when his request for state subsidies was rejected.

Hansemann, the organizer of both the Rhenish and the Cologne-Minden railways, also urged the state to monopolize railroads. At the fourth Rhenish Diet in 1833 Hansemann stated that "an enterprise so important and so pervasive in all material interests should not be left to private speculation... it is in the best general interest of the land, when all roads, canals, and railroads belong to the state." The worth of a railroad, he wrote, should be measured not by profit (or loss) but rather by the common good. In a subsequent essay in 1837, Hansemann argued that the state should bear the cost of the institution that would bring general prosperity to the nation. A similar argument came from E. Bülow-Cummerow, a Junker agrarian-capitalist, who did not trust private entrepreneurial interests in the west to develop agricultural markets in the east. Such an important economic and military instrument as railroads, he argued in an 1843 essay on Prussian politics, should not be left to "private speculation." Unlike contemporary laissez-faire publicists such as John Prince Smith, commercial leaders in both the western and eastern provinces perceived the state, in its ideal form, not as an impediment to development but, rather, as an institution to promote economic change.

Businessmen, however, were disappointed. Harkort lamented in 1835 that ten years had passed and little had been done to encourage railroads. Camphausen, criticizing the lack of an assertive economic policy, quipped in the same year, "Such is the order of things in our beloved Germany. It assembles a handsome library of books in German on locomotives, railroads, and canals, but we have neither locomotives, nor railroads, nor canals." The assumption among business elites that the state should finance, if not own, railroads did not run counter to their financial interests. In this early
phase of railroad construction, few believed that private circles could amass the capital needed to build. More important, few believed that railroads would reap dividends worthy of long-term private investment. Behind arguments of the "common good," then, lurked the fear of debt, the belief that just as canals and streets had traditionally emptied state coffers, so would railroads. In 1837 Hansemann assumed that railroads would never earn good profits because the advantage of low tariffs for commerce far outweighed the revenues to be earned from rail transport. Although "the mightiest lever of welfare and German power," railroads would never be a moneymaker. But when railroads demonstrated their ability to make money as well as reduce shipping rates in the 1840s and 1850s, the cry for state ownership rapidly disappeared among businessmen. Profit margins more than economic doctrine affected the positions of Prussian businessmen on railroad ownership.

And yet philosophical-historical considerations did support the idea that the state should take up money-losing enterprises for the common good, intellectual convictions that influenced businessmen as well as scholars. Their minds were nurtured as much by G. W. F. Hegel and the Comte de St. Simon as by the laissez-faire economists Adam Smith and David Ricardo. Since the 1770s German Idealism had depicted the state as the moving force in world history, and utopian socialist St. Simon saw in the growth of science, technology, and factory production a pattern for the future reorganization of society and government. In 1841, when Cologne businessmen (among them Gustav Mevissen, Ludolf Camphausen, Gustav Mallinckrodt, and Dagobert Oppenheim) financed the Rheinische Zeitung, they chose as editor the young Hegelian Karl Marx, not a free trader. Early German capitalists saw the state as the key to progress, the lever of national welfare.

More concretely, the Prussian government had heeded the needs of the business community for decades, with both laws and direct involvement. Notwithstanding some glaring and significant clashes with business interests, the state enjoyed the reputation of possessing one of the most progressive economic policies in the German Confederation. Changes introduced by a circle of high-ranking officials in the years 1807-13, the Reform Era, enabled modern capitalism to take root in Prussia. Embracing certain elements of economic liberalism, reform bureaucrats Freiherr vom Stein and Prince Karl August Hardenberg abolished serfdom, guild restrictions on production, and restrictions on occupation and relocation. Tariffs were abolished between provinces but—departing from Smithian economics—set at moderate levels for imports to encourage domestic industry. These reforms allowed capitalists to create open domestic markets, hire (and fire) wage laborers in accordance with business cycles, and rely on migration to urban and rural regions for temporary, nontraditional labor. Although the Stein-Hardenberg reforms failed to
achieve many of their chief social and political aims, these laws had practical force for the infant railroad industry. The thousands of navvies that dug and built Prussia's first railroad beds and tunnels in the 1830s and 1840s prefigured the future industrial concentration of Germany's workforce.

In the Rhineland, the Prussian government further enhanced its relationship with the business class by keeping the Napoleonic law code in effect after it acquired the province in 1815. The legal continuity eased the transition from French to Prussian rule and sent a strong signal to Rhenish businessmen, whose prosperity depended on the 1807 Code de Commerce, that Prussia recognized the advanced economic state of its new provinces. The French law codes ensured equality before the law and, unlike the Prussian Edict on Municipal Government of 1808 (Städteordnung), made no distinction between town and rural residents, provisions which better suited the widespread putting-out system of the Rhenish textile industry. The French jury system also pleased Rhenish merchants; only property owners could be jurors, ensuring "that the law would deal severely with those who committed crimes against property." The Prussian government, furthermore, retained the French commercial courts, which settled commercial disputes more quickly than civil due process. Prussia also kept intact the semiofficial status of the Rhineland's chambers of commerce, through which businessmen shaped local affairs and enjoyed Staatsunmittelbarkeit—direct contact to Berlin ministries. This apparent spirit of cooperation encouraged businessmen to advocate state ownership of railroads.

The most far reaching achievement of Prussian economic policy before 1848 was the creation of the Customs Union in 1834. This union of eighteen German states removed many economic barriers posed by particularism and was the essential precondition for Germany's economic takeoff. To improve trade communication the Prussian government radically overhauled its highway and postal system, increasing its highway mileage threefold between 1817 and 1835 and fourfold by 1842. Consequently, the state's interest in improving trade, infrastructure, and economic competitiveness made it a likely candidate for railroad ownership.

More important, perhaps, the long history of direct state intervention in the economy led businessmen to believe that the state would absorb losses to promote railroads. Since the late eighteenth century, it had built model factories, imported new technology through state-sponsored industrial espionage, and offered economic incentives for private investment in steam engines and power looms. The state's commercial investment bank, the Seehandlung, owned and operated an array of enterprises: coal mines, silk factories, textile mills, chemical works, and zinc, iron, and steel mills. It owned fleets of merchant and steam ships and operated tugs in the Elbe, Havel, and Spree
rivers. The state founded the Berlin Technical Institute (today the Technische Hochschule of Berlin) in 1821 to train civil servants as engineers and machinists. Prussia's first locomotive was manufactured by the royal foundry in 1816, though it was decidedly not a model for entrepreneurs. The steam locomotive was pulled by horses around a track in the factory courtyard, and when it was transferred to Silesia to work in the coal mines the wheels did not fit the track gauge.

With these early economic reforms, reform-minded officials hoped to unleash the creative and productive energy of individuals. Inspired by Kantian views of individual freedom and the economic philosophy of Adam Smith (Hegel made his mark on the next generation of bureaucrats), these state servants of the Reform Era sought to change the fabric of society. Yet, though these laws were cloaked in the spirit of laissez-faire individualism, the cut was distinctively Prussian. Unlike Adam Smith, who envisioned in the Wealth of Nations government reduced to minimal functions, Prussian officials introduced these reforms to restore their badly indebted state to solvency and to nurture a new civic spirit capable of generating a popular resistance to French domination. Mercantilism, the economic doctrine of the Frederician state, had become outmoded. The liberal reform faction in the bureaucracy sought to engender greater private wealth that would yield higher tax revenues. The progressive elements of Prussia's economic policy did not serve the laissez-faire program of dismantling government.

In short, the principle of the invisible hand was embraced neither by state bureaucrats nor by businessmen in Prussia. In the early phase of capitalism, both accepted the state's role in guiding, encouraging, and promoting economic prosperity. Harkort, Hansemann, Camphausen, and others cautioned the Prussian government to learn from the squalor and misery created by England's laissez-faire excesses. They exhorted the government to enforce child labor laws, prevent overconcentration of industry to avoid urban misery, and build technical schools to train the unemployed. For most Prussian businessmen, the state was a self-evident component of their economic, social, and political outlook. Businessmen had benefited from state intervention in the past and expected it in the future. And government officials hoped that if commerce and industry were promoted, greater wealth could revive the Prussian state—and the noble and bureaucratic classes that served it. Why, then, did the state not build the railways?

The issue of state railways first arose in the late 1820s. Peter Beuth and Karl Schinchkel, two prominent civil servants, toured British industrial regions in 1826, reported on English railways, and subsequently dispatched a state mining engineer and a geologist to study railroad construction. These reports impressed Finance Minister Friedrich von Motz and Foreign Minister
Christian von Bernstoff, who in 1828 proposed a state railroad to connect the Weser and Lippe rivers. But their interest in railroads was grounded mostly in a short-term political aim: to apply political pressure on Hanover and Hesse-Cassel. These states, along with Saxony and the free cities of Bremen and Frankfurt, had formed the Middle German Commercial Union in 1828, a customs league that threatened Prussia's plans for the Zollverein. Connecting the Rhine and Weser would open up a new toll-free trade link between southern and northern Germany that would exclude Hanover and Hesse-Cassel. The line, moreover, would loosen the Dutch garotte on Rhenish shipping.

But the king rejected the railroad plan, insisting that the road between the two rivers (connecting the cities Minden and Lippstadt) was adequate. And the idea faded altogether when both political problems found solutions: the Kingdom of Belgium ended the Dutch trade monopoly in 1830, and Hesse-Cassel finally joined the Prussian union in 1831.

The Prussian government's refusal in the 1830s to participate in railroad building stemmed partially from the initial lack of foresight by the king and from the weight of the factions in the bureaucracy and court that opposed railroads. In the early 1830s King Friedrich Wilhelm III took little interest in railroads and was resistant to arguments promoting them. When he announced "that he did not see that it made a great deal of difference whether one arrived in Potsdam a few hours sooner or later," the king clearly failed to grasp the ramifications of railroads. Like the king of Hannover, who expressed his dislike of cobbler's and tailors traveling as fast as he did, Friedrich Wilhelm objected to riding with commoners. He probably concurred with other nobles that the mobility offered by railroads would erode the moral fiber of society. He refused to use the Berlin-Potsdam line that connected his two residences for the first few months of its operation, and throughout the 1830s he set a resistant, obstinate tone at court against the "ephemeral fashion" of railroads. Nonetheless, one cannot view the king as an absolute opponent of railroads. In the three years before his death in 1840, he acknowledged the military utility of railroads, thus deferring to his generals, who constituted an important bureaucratic faction backing railroads. In recognition of the military's need for railroads, Friedrich Wilhelm bequeathed one million thalers on his deathbed to a railroad line connecting the western and eastern provinces. Although this sum alone could not finance the railway, which would demand tens of millions of thalers, the legacy represented 1/20 of Prussia's money supply and was therefore not insignificant.

Friedrich Wilhelm's disposition toward railroads was all the more strengthened by the negative views of leading officials who together composed a formidable bureaucratic faction against state involvement in railroads:
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Postmaster General Karl Ferdinand Friedrich von Nagler; Peter Beuth, the celebrated promoter of Prussian industry in the finance ministry; and Christian von Rother, the president of the Seehandlung, the director of the Royal Bank, and the chief of the finance ministry’s trade department. The king called upon these officials in 1835 to outline a railroad policy. Three charters had already been granted by this date, but these concessions provided scant information in answer to investors’ questions regarding the government’s attitude toward railroad building. Would it build its own network and remove railroads as an equity on the stock market? Or would it provide incentive to private investors with interest guarantees and favorable loans? The competition for a fourth charter between Magdeburg and Leipzig in 1835, compounded by official and unofficial requests for a policy, compelled the bureaucracy to consider general rules for ownership and administration.

Rother’s 1835 report damned state participation in railroads. He doubted whether railroads were a necessity for the European continent; the present demands of transportation, he wrote, were met by the highways and canals. The construction costs, he believed, were also prohibitive. Because continental railroad companies had yet to pay satisfactory dividends, there was no evidence that railroads could pay for themselves. And if profits were earned, he added, they would diminish the revenues from the toll roads and postal roads to which the state was committed. He also feared that capital, which should be invested in industry and state paper, would instead be attracted to railroads. Thus, Rother concluded that the state had no business either building or subsidizing railroads. But private railroad companies, he acknowledged, presented serious problems with both stock swindles and a transportation monopoly that could harm the state. Consequently, he recommended—true to the Prussian bureaucratic spirit—that the government supervise construction and administration of private railroads and reserve the right to final ownership.

Nagler and Beuth supported Rother’s position. Focusing on the specific issue of railroads and the postal system, Nagler saw railroads only as a threat to government profits and to the state’s sovereign control over conveying post. As a minister who had worked tirelessly to make the Prussian postal system the best in Germany through superior roads and coaches (the latter doubled as a profitable transportation system), Nagler was disinclined to see his success wiped away by a technological innovation. Beuth, on the other hand, believed that industrialization had not yet reached a level advanced enough to support the financing of railroads. Augmenting the oppositional front of these ministries was the Mining Corp, which feared that the promotion of railroads would escalate coal production uncontrollably, keeping the state from responsibly managing the coal industry. The opinions of Rother’s faction were ac-
cepted by the king, who granted the Magdeburg charter in February 1836 with no subsidies or interest guarantees from the state. These two basic conditions of the 1836 charter became the nucleus of the general Railroad Law of 1838.

The resistance of these three influential ministers to railway development remained throughout the 1840s. In 1837 Rother resigned from his position in the finance ministry because his opposition to railroads brought him into direct conflict with the crown prince, but he was later forced in 1842 by Friedrich Wilhelm IV to manage railroad finance as the head of the Seehandlung—an act by the new king that “amounted to a cruel revenge.” Nagler remained a staunch critic of railroads, while Beuth only grudgingly acquiesced in the government’s policy. Rudolf Delbrück, a junior official in the finance ministry during the 1830s, remarked in his memoirs that Beuth, once a pioneer of reform, was “too advanced in years and too set in his ways to blaze new trails. This fact was most noticeably—and most sadly—evident with his position on railroads . . . [which] belonged to his administrative sphere but hardly existed for him. He delegated the preliminary work to his subordinates, limited himself to sarcastic remarks during meetings, and merely supplied the signature to finished memoranda.” Ironically, locomotives after 1848 bore his name as a tribute to his “promotion” of railroads.

There were, to be sure, proponents of a state railroad system in the Prussian state. The junior ranks of the bureaucracy were filled with railroad enthusiasts who were not scarred by the debt-ridden years of Napoleonic era and were more receptive to the promises of the railway age. More crucially, the war ministry, shifting from its initial opposition to railroads, which was grounded in fear of a quick, indefensible French invasion, came to appreciate the benefits of rapid troop transport. In 1836, during the debate on the Railroad Law, leading members of the war department advocated a state system, which would ensure the military’s full exploitation of this new mode of transportation.

But when it came time for the king to arrive at a decision in 1837–38, the economic realities of state life, as presented by Beuth, Rother, and Nagler, overrode the military preference for state lines. Prussia had already tripled the mileage of its roads between 1816 and 1831, from 3,866 to 10,360 kilometers, at a cost of 42 million thalers, giving it one of the best road systems in Europe. For a poor state like Prussia, this was a large infrastructural investment, especially with Rother’s efforts to reduce the crushing state debt, standing at 250 million thalers after the Napoleonic era. A commitment to railroads, Rother believed, would burden the state with greater loans and negate the government’s twenty-year attempt to stabilize its finances. Echoing Rother, a state council report of 1838 announced: “It is impermissible to jeopardize the fortunate condition of an orderly government budget so that
the state, by borrowing money or by depleting necessary reserve funds, can play entrepreneur." Railroads did not fit into the economic outlook of officials who, having witnessed near bankruptcy in 1806–7, resolutely adhered to fiscal conservatism.

But the most compelling reason why state officials shied away from railroad building was political. At issue was the question of the Prussian constitution. In 1810 and 1815 the king promised his subjects a constitution guaranteeing national representation, a major goal for the reform bureaucrats, who saw a constitution as the first step toward transforming the Prussian subject into a citizen. The constitution, however, never materialized. "Fears of a Jacobin revolt in 1818, pressures from Metternich in Vienna, the resistance of conservative ministers and representatives of the East Prussian Junkers, and the conservatism of the monarch," writes Jeffry Diefendorf, "all combined to thwart plans for a constitution." To avoid political change the king never convened the United Diet, the central representative body of estates that would most certainly have exhorted him to fulfill his promise.

But this diet also had an important economic function: it cosigned state loans greater than twenty million thalers. The king considered this law, passed in 1820 to rein in the expenditures of an expanding bureaucracy, an "innocuous concession," because he planned to rule without loans. And, indeed, he never called a diet during his reign, 1797–1840. Hardenberg, the king's leading minister, on the other hand, saw this 1820 law as the third promise for a constitution and as a mechanism to accelerate the building of a national assembly. He was right. With the industrial age imminent in Germany, this law effectively curbed royal and bureaucratic prerogatives, for it linked the state's finances to the constitutional question. Because the cost of railroad construction was too high to avoid the cosignatory, the railroad question was at once political and economic. This fact did not escape entrepreneurs such as Har-kort, Camphausen, and Hansemann, all advocates of a constitutional monarchy. Their pamphlets in the 1830s pleading for state railroads bristled with this political subtext. They believed the urgency of building railroads in conjunction with the 1820 debt law would bring the constitutional question to a head.

Unwilling to face the political consequences of raising the credit to build railroads, the Prussian government introduced a general Railroad Law in 1838 that handed the task of finance and construction over to the private sphere. The law's concise forty-nine paragraphs included provisions for upkeep, taxation, charters, stock subscription, police supervision, safety standards, postal transport, military use, eminent domain and compensation, passenger and freight prices, profits (announcement, limitation, and use thereof), and the exclusion of competing lines for thirty years. The law's most salient features were the state's right to supervise administration and the company's need to receive
state authorization for any changes, such as branch lines or new stock issues. An appointed state commissioner would act as liaison between the government and company, and he was to be notified of all stockholder and board meetings.\textsuperscript{82} The state, furthermore, reserved the right to take over a company after thirty years and set specific conditions for indemnifying stockholders.\textsuperscript{83} The law exempted railway companies from commerce and stamp taxes but nonetheless imposed a special levy (as compensation for diminished toll revenues on highways) that would enable the government to purchase stock. Given the political and economic constraints of the state, the law was tailored more to its needs than the needs of railroad builders. The law relegated a task that the state could not carry out to the private sphere but nonetheless reserved the state's right to supervise the industry and eventually own it.

Historians have praised the law for its remarkable prescience of future needs and disputes,\textsuperscript{84} but contemporaries were not as sanguine. Karl August Varnhagen von Ense, the writer and perceptive observer of Prussian politics, entered in his diary on 13 April 1838 that the government “even makes a soured face to railroads.”\textsuperscript{85} Less casual in locution, the Aachen and Cologne chambers of commerce presented stinging critiques of the law, objecting particularly to paragraph 48, which retroactively applied the law to the company charter already granted to the Rhenish Railway for the Aachen-Cologne line.\textsuperscript{86} (The railway company, in fact, never recognized the validity of this particular clause.) The restrictive and potentially expensive clauses of the law, such as the company's unlimited liability for persons and goods traveling on the railway and a 10 percent ceiling on profits, led stockholders of the Rhenish Railway to believe that directors had duped them by deliberately founding the company before promulgation of the law.\textsuperscript{87}

Such complaints prompted a special meeting of stockholders with Ernst von Bodelschwingh, the provincial governor of the Rhineland, who freely admitted the deficiencies of the law.\textsuperscript{88} Officials of the Rhenish Railway, Ludolf Camphausen and David Hansemann among them, promised the stockholders to petition the government to amend the law. For this reason Camphausen immediately published “Toward a Contribution to the Railroad Law,” an essay that urged the government to amend the legal vagueness of the law and to recognize the public good to be derived from private railroads. He criticized the spirit of the law, which set the obligations of a railway to the state but not the reverse.\textsuperscript{89} He believed the lack of state support retarded railroad development, while the many restrictions and obligations imposed on companies cut into slim profits. Camphausen concluded that the law would drive investors and entrepreneurs away from Prussia.\textsuperscript{90}

Hansemann, too, attacked government railway policy with three pamphlets. In 1837 he had already attempted to influence the writing of the law
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with his “The Railroads and Their Stockholders in Their Relationship to the State.” This pamphlet strove to influence the government, which in January of that year had begun to draft the Railroad Law. It ostensibly advocated state ownership, but its title revealed the true aim: to strike a balance between state supervision and the rights of stockholders. To create this equipoise, guarantees of entrepreneurial freedom had to be secured so that speedy construction, efficient management, safe investment, and the needs of the “common good” could all be met.\(^{91}\) He wrote that the government’s alleged plan to design a law that reserved the right to enact future restrictions, interfere in company decisions, and impose its conditions retroactively on already chartered companies resulted in a shaky legal basis for private railroad ownership. He endorsed state supervision, which he believed was proper to avoid the abuses found in the American system, but objected to the absolute power conferred on the ministers by the law. Joint-stock companies were corruptible, he noted, but overweening government control was equally destructive for investment and efficient administration.\(^{92}\) Instead he advocated commissions in which representatives from government, commerce, and industry would issue, renew, and revoke charters after reviewing companies’ performance.\(^{93}\)

In 1838 Hansemann attempted a second time to influence the final draft of the law. Centering on the relation of the postal system to private companies, the essay “Prussia’s Most Important Railroad Question” criticized the power accorded the postmaster general to determine independently the reparation fee for each railroad company. It pleaded for firm laws that would apply the same criteria to each company in fixing compensation and thus avoid arbitrary action by ministers. In this essay Hansemann’s belief in private railroad ownership was more pronounced; the argument rested on the premise of private companies and their unassailable right to seek reasonable profit while providing a public service.

In 1841 Hansemann’s A Critique of the Prussian Railroad Law of 3 November 1838 went further and lambasted the one-sided discussion that created a law that, he claimed, failed to provide clearly delineated legal protections upon which private investors could depend. He criticized the fact that all branches of government were consulted, abiding by the collegial system of Prussia’s bureaucracy, yet entrepreneurs were not invited to contribute. “Thus a law came into being,” he wrote, “that gives stockholders the impression that the state has received the legal means to ruin companies, an opinion that is especially evident in the Rhineland, where one is accustomed to expect legal protection more from laws and less from what the government feels is fair.”\(^{94}\) Hansemann’s commitment to constitutionalism emerged in his attack on legislation designed under bureaucratic absolutism: “This condition is to be named lawless, when the legal conditions are so made that the profits of an enterprise
depend on state officials' sense of fairness. However beautiful and honorable the state government finds this trust in its own fairness, it honors itself more and appears worthier when the state establishes lawful justice fairly, as opposed to making lawlessness a law and then consoling itself with the belief that there is trust in its fairness." For Hansemann the "unmeasured paternalism and control" which the law reserved for the state, combined with the "unheard of responsibilities" that it imposed on private companies, amounted to flawed legislation inappropriate for a rising commercial and industrial state. He reminded the government that the cost of building public railroads was beyond the state's capacity. Having failed to provide for the common good, the government was wrong to lay unnecessary burdens and restrictions on private companies. The political message was unmistakable: Prussia's business class, its bourgeoisie, merited a greater say in governmental affairs because it could now provide the economic power the state lacked.

The complaints of Camphausen, Hansemann, and the chambers of commerce surfaced in the Rhenish diet, whose 1841 proceedings petitioned the state for a revision of the law. These criticisms seemed to have had some effect. The state council, for example, amended a paragraph in the cabinet's original draft of the 1838 law that allowed the postmaster general to impose compensation fees on individual companies as he saw fit. Echoing Hansemann's critique, the revised version planned fixed terms (to be set at a future date) for compensation. Moreover, two paragraphs heavily criticized by Camphausen and Hansemann—the lease of a company's railways to another company and the 10 percent maximum on company profits—were never enforced. Finally, future discussions on railroad policy included railroad entrepreneurs.

The Mixed System, 1840–1847

In 1838–39 the common stock of the Rhenish Railway fell twenty points below par, forcing its directors to sell reserves of stock to raise money and thereby increasing the amount of devalued paper in circulation and further depressing its price. This downward movement in value, which conformed to a general trend, encouraged the belief among businessmen that the Railroad Law had failed to give private companies enough government backing. Threatened with liquidation, the Rhenish Railway appealed to the government to buy 4,000 shares at market value for one million thalers. The government refused despite Hansemann's threat to sell the 4,000 shares to the Belgian government, which he did secretly in October 1839.

The belief of Prussian businessmen that the direct effect of the Railroad
Law was a bear market is important. They feared that they would lose investors to Bavarian and Saxon railroads, which paid better dividends, and reasoned that the state was obliged to aid the fledgling railways. The lack of commitment embodied in the 1838 law, they believed, harmed the business, and they complained about the government’s inconsistent messages to investors. Stock returns over the next four years, 1839-42, strengthened this view. Of the six Prussian railway companies offering dividends, five paid rates either the same as or lower than those of previous years. Relative to the European and American railroad market, this performance fell short of investors’ expectations—and early railroad owners maneuvered boldly with block shares to prevent further devaluation. Although the 1840s are generally regarded as a prosperous period for railroad stocks and bonds, company ledgers reveal a precarious time. In hindsight, we see the beginning of irreversible industrial growth, the groundswell of Prussian economic superiority. Businessmen in the 1840s, however, did not exhibit the confidence often associated with early capitalism.

In principle the 1838 law consigned all finance and construction of railroads to private hands. Yet the old habit of state promotion of industries deemed important for its military or fiscal benefit reasserted itself. In 1839, the Seehandlung, the government’s commercial bank, granted the Berlin-Anhalt Railway a 500,000 thaler loan and purchased shares amounting to one million thalers. Similarly, the government aided the Berlin-Stettin Railway by purchasing 500,000 thalers worth of company bonds, while promising the Pomeranian diet to uphold its claim to the railway company to guarantee a 4 percent dividend. Rother, who authorized these transactions, reluctantly acquiesced in the state’s altered policy of aiding certain important lines.

These actions were but overtures to what was to come after Friedrich Wilhelm IV came to the throne in 1840. Compared to his father’s caution in mediating between rival parties in economic policy, the new king’s open-minded optimism toward railroads set a new tone in matters of economic reform. The Hohenzoller, like his Bavarian cousin Ludwig, had a passion for railroads and strongly believed in the state’s obligation to promote them. As crown prince he had fought the conservative opinions of his father’s ministers in the 1830s, and it was his quarrel with Rother over the Railroad Law of 1838 that prompted the minister to resign from the finance ministry’s trade department. The new king, with the backing of military advisers, was intent on building railroads in the eastern lands, especially a railway between Berlin and Königsberg.

The public discussion on railroads was renewed in 1841 when the king called upon the provincial diets to select representatives for United Committees of the Estates of the Prussian Provincial Diets (Vereinigten ständischen
Ausschüsse der preußischen Provinziallandtage) to meet in Berlin in October 1842. This committee was the first public expression of his commitment to reinstate “Germanic” corporate assemblies, an extension of the provincial diets intended to restore something of the feudal Ständestaat that absolutism had destroyed. The king decided when the standing committee would convene and what issues it would address. Its function was to be purely advisory.10

But the king also saw the committee as a shrewd way to finance loans without granting a constitution. “A Central Diet [Reichstände] can be avoided,” the king wrote his brother Prince Carl, “by contracting loans through a body composed of 32 deputies and 32 state councilors.”11 The Committee, he wrote to Oberpräsident Theodor von Schön, would raise “the possibility . . . of enjoying all the advantages of a general diet without having to fear the consequences [Erschütterungen] that the sudden introduction of the latter might bring.”112

For bourgeois liberals, though, a joint committee of provincial deputies revived hopes for a constitution.113 In connection with other reforms, such as less stringent press censorship,114 the committee appeared as the cautious first step toward fulfilling the promise of a constitution. The enthusiastic reaction of the press and its reform-minded audience, in fact, corresponded to the fears of Metternich, the tsar, and the king’s ministers, most of whom implored him not to proceed with the idea.115

To throttle political discussion during the committee’s sessions, the king’s ministers (Bodelschwingh and Eichhorn) drew up a narrow agenda of three questions to be presented to the deputies and furthermore created a protocol that prohibited debate and petition. The result was an agenda in which Hansemann “recognized neither a political nor a practical thought.”116 The three questions posed to the committee that assembled in October and November 1842 were whether the salt tax should be lowered to help the working classes; whether private rivers should be opened for public navigation; and whether the government should establish a Railroad Fund to promote private companies’ construction of a national network connecting all provinces.

With the last question, the government proposed to help build five basic lines, whose construction was estimated to cost fifty-five million thalers: a Rhein-Weser line; a railway through Thuringia to the west; a railway from the Oder River to the Russian border; a line from Frankfurt on-the-Oder to Breslau and continuing to upper Silesia; and a line to connect Posen and Silesia. The government guaranteed a 3.5 percent dividend for the stock of private companies but cautioned (to avoid charges of increasing the debt) that it would not spend more than two million thalers.117

The first two issues facing the committee were not controversial (the former was a foregone conclusion, the latter technical and trivial), but the
question of a national railroad network was not as tame as the government had hoped. First, it raised the age-old Prussian question of whether the government should encourage state unity or preserve the particular political traditions of its provinces. Railroads amounted to economic and infrastructural unity, which liberals hoped would develop a common political consciousness and, ultimately, “unified political representation of all Prussian people.” Second, the 1820 debt law, as we have already seen, required that state-financed railroads be approved by the estates in a United Diet, thus raising the question of whether the fund could legally be approved. “There can be no doubt as to the illegality of this kind of support,” Ludolf Camphausen wrote his brother Otto. “The question is whether the government will decide to reveal the actual state of our finances.” The political dimension of railroad building could not be ignored.

The king’s plan to use the committee as a rubber stamp for his economic and political designs was only partially successful. Although the assembled body did not have the right to initiate discussion, engage in debate, or even thank the king in a formal address, unpleasant questions arose. Friedrich Joseph Brust, a merchant from the Rhenish town of Boppard, declared that the committee was not empowered to approve financial operations of the state and asked for exact information on state assets and incomes before discussing financial matters. Moreover, if the state was interested in promoting railroads, he announced, it was obligated to convene a United Diet. August von der Heydt, a deputy representing the Westphalian diet, also broke with protocol, stating that because of the “great improbability of a high dividend from the designated railway lines, it appears wiser if the state took over construction.” This comment received the clear support of the majority, suggesting either a belief in state-supported economic enterprises or a political ploy to force the king to convene the United Diet.

Heydt pressed the issue of state railroads so vigorously that Bodelschwingh, the presiding representative of the king’s cabinet, forbade any further discussion on state railways. The state, he announced, did not plan to build railroads, and the committee was convened only to consider the state’s role in guaranteeing dividends for private construction. When committee members continued to question the legal validity of approving dividend guarantees, Bodelschwingh threatened to retract this question from the agenda and have the king renounce any kind of state support for railroads. Faced with this threat, the committee approved the original request with only fourteen dissenting votes.

Yet the committee unexpectedly exhibited initiative. Led by Heydt, the members of the committee compelled Bodelschwingh to take an additional vote on a tortuously formulated hypothetical question: “Whether the assembly
wishes to declare in the protocol that it believes the best means for carrying out the projected railroad lines is at state cost and would have voted for this option had the government not expressly stated its decision not to build railroads in the near future at state expense." This motion was defeated 50 to 47, a narrow but surprising loss for Heydt's popular position. Heydt ascribed the defeat to the peculiar hypothetical nature of the question, but the divided vote also showed the lingering willingness of politically inexperienced liberals to accommodate the wishes of the government. Once it was clear that the government had no intention of building state railroads, many abandoned the position of principled opposition.

Heydt's unflinching support for state-owned railroads in the 1840s merits explanation. His viewpoint, which remained unaltered for the next thirty years, significantly affected German political economy, for he served as Prussia's trade minister from 1848 to 1862. Although we have no primary documentation by Heydt on the origins of his position, his advocacy of state railroads most likely grew out of his early trying experiences in launching private railroad projects. In the years 1836–42, Heydt led Elberfeld in attempting to build three railroad lines that would connect the commercial and financial center of the Wupper valley with branch lines to the coal seams of the Ruhr (Elberfeld-Witten line) and Berg regions (Elberfeld-Duesseldorf line), as well as with a trunk line connecting the Rhine and Weser rivers (the Rhine-Weser line). Heydt could hardly claim unqualified success; two of the three projected companies never came to life. Finding investors for the Rhine-Weser line (260 kilometers long) was especially difficult, provoking Heydt in 1838 and 1839 to appeal to the state for a two-million thaler subscription. When the government refused, the company was compelled to stop its preliminary work and dissolve itself, producing in turn considerable regional distrust of future railroad schemes.

Following the coronation of Friedrich Wilhelm IV, whose enthusiasm for railroads produced a new optimism for construction, Hansemann's company received the right to build a Rhine-Weser line in 1841. The Cologne-Minden Railroad, however, planned a route that bypassed Elberfeld, arousing indignation and fury among the city's commercial elites. Heydt was a leading member of the Berg-Mark Railroad Committee that protested to the king both the route and the study, which fixed a prohibitively high cost to include Elberfeld. Challenging the plans of the private Cologne-Minden Railroad, this committee proposed a "Rhenish-Westphalian line," built solely from state funds. This proposal fell on deaf ears in Berlin, but the committee's efforts were not in vain. The government agreed to fund an independent survey to assess the accuracy of Hansemann's cost projections. More important, the ardent wishes of Elberfeld businessmen to be linked to the railroad network were eventually
realized in March 1844 with the chartering of a line between Elberfeld and Dortmund, which became the Berg-Mark Railroad.\textsuperscript{129} For this railroad Heydt acted as both financial officer and chairman of the board.\textsuperscript{130}

Heydt’s early engagement with railroads is instructive for two principal reasons. First, it reveals how interwoven political and economic issues were for the business class. Heydt’s honorary public offices as a judge for the region’s commercial court (1831; president 1840), a city councillor (1833), and a member of the district diet (1834) had always been connected with business and his status as the oldest son of a commercial patrician family. But business and politics were made indivisible by the convergence of Heydt’s financially based desire, as a banker and an entrepreneur, to bring rail lines to Elberfeld with his political duties in the seventh Rhenish provincial diet in 1841 and in the standing committee of 1842. Second, Heydt’s assertive, almost defiant, support for state railroads in the United Committee in 1842 is most likely explained by his frustrating experience in attempting to control Elberfeld’s railroad future. The struggles among rival commercial centers to influence, if not dominate, railroad politics compounded by the difficulty of raising sufficient capital on the private market seems to have left an indelible mark on his thinking. Although most other Prussian commercial elites changed their stance after 1842 and championed private ownership, Heydt tirelessly strove for state ownership. Heydt would champion other economic liberal causes in his tenure as a state minister (joint-stock principle, privatization of coal industry), but he tenaciously advanced state ownership in the heyday of private railroads.

The vote that approved the Railroad Fund in 1842 produced a discrete government account set up in 1843 to promote the construction of the five proposed railways. The government transferred a one-time sum of six million thalers to the Railroad Fund. Additional two million-thaler annual installments replenished it. The government further announced its decision to invest in one-seventh of the capital stock of the five proposed lines and guarantee the remaining six-sevenths of share capital with a 3.5 percent dividend. The interest on the government’s stock flowed not to the treasury but to the Railroad Fund, whose assets were to be used to acquire more shares.\textsuperscript{131}

The Railroad Fund established the mixed system of railroad building in Prussia. The far-reaching supervisory powers that the government granted itself in the Railroad Law of 1838 were now balanced by financial subsidies and dividend guarantees to private railways. The mixture of private enterprise and state support roughly corresponded to the earlier suggestions of Camphausen, Hansemann, and others.\textsuperscript{132} The state support for these five trunk lines signaled a new government commitment to the industry, which entrepreneurs believed would benefit all Prussian railroads. Indeed, railway companies not among the privileged five did receive state help. In 1843 the Rhenish Rail-
way was granted a loan of 1.25 million thalers, and the Berg-Mark Railway received a million thaler loan in 1844.

Under the mixed system, railroad securities experienced a boom between 1842 and 1846, exceeding state paper and all other enterprises in dividends. The boom underscored a new position of strength for railroad businessmen, who could profit from their own enterprises but still have the assurance of government commitment. The arrangement also put to rest the question of whether the state should monopolize ownership. "Since so many private railroads were in operation, in construction, or in the planning stage," wrote Hansemann's biographer, "it could now only be a question of a mixed system of private and state railways, and the experience in Belgium and Baden showed that the state built much more expensively than private companies." Above all, the mixed system worked. Between 1842 and 1848, sixteen private railroads were chartered in Prussia, capitalized at 84,232,500 thalers. By dint of Prussia's surge in railroad construction, Germany's railway mileage doubled that of France.

The mixed system reflected a spirit of cooperation, but this change does not entirely describe government-business relations in the 1840s. Stock market laws introduced in April and May 1844 prohibited trading foreign stocks, buying on margin, and, above all, subscribing railroad stock without permission from the finance ministry. The laws attempted to curb the mania for railroad securities that gripped Prussian society after 1842—drawing in even artisans and the lower echelons of the bureaucracy, many of whom lost substantial savings on reckless, inexperienced trading. The radically increased volume in securities multiplied the number of illegal stock-jobbers, thus weakening the regulatory power of the state. The railroad boom also threatened temporarily the viability of both state bonds and the mortgage bonds of provincial land banks. The latter were the foundation of Junker economic life; since the late eighteenth century these bonds had generated the funds that financed the transition of noble estates from a local subsistence economy to an agrarian market capitalism. Strengthening bureaucratic controls on buying stock while curtailing the number of railroad securities to be traded in Prussia reflected the suspicious attitude of both state officials and landed nobles toward the new joint-stock operations. The action of conservative elites against the new money class demonstrated their fear of industrial capitalism and the ambivalence of state economic policy, which simultaneously hindered and helped business.

The government law intended to crack down on questionable ventures and brokers, but it also contributed to the first modern stock market panic. Investors halted further payments on stocks, banks withdrew their investments from Berlin, and the impossibility of future stock issues threatened the solvency of many existing companies. Contemporaries referred to a Geldkrisis:
a shortage of liquid capital because of the government's conservative policies on money supply and commercial loans, compounded by its refusal to allow joint-stock banks to operate in Prussia.\textsuperscript{139} This shortage of investment capital was now heightened by a lack of confidence in the stock market. The panic of 1844, a direct reaction to the new law, depressed the value of railroad stocks by 20 percent.\textsuperscript{140}

The panic became the overture to a short-term depression (1846–49) triggered by crop failures between 1844 and 1847. The potato blight of 1845 and bad harvests in 1846 raised the average price of basic foods 50 percent and doubled the price of potatoes and rye. It produced a misery that had not been seen since the famine of 1816–17 and the economic privation suffered under the Continental System.\textsuperscript{141} In conjunction with bad harvests, the lack of confidence in investment and the drop in production contributed to the social unrest caused by the unemployment, hunger, and social distress of Germany's laboring classes in the years before 1848.

In spite of the harsh laws against high finance, clear entrepreneurial opposition to government is not evident. At the same time as these hostile laws, the government and business circles developed a dialogue that was less paternalistic than in past times. The government recognized its failure to consult those directly affected by the 1838 Railroad Law. In February 1843 the finance ministry issued a rescript, asking its provincial officials (Landräte, Regierungspräsidenten, and Oberpräsidenten) to consult property owners and railroad companies on how to revise the Railroad Law.\textsuperscript{142} The report to the Brandenburg Oberpräsident that summarized the results of local officials' inquiries showed a broad enthusiastic response from railroad companies and property owners. The Berlin-Potsdam, Berlin-Anhalt, and Berlin-Frankfurt railways presented a list of complaints, “endorsing more or less Hansemann's Critique of the Railroad Law, and the Berlin-Anhalt referred to it directly.”\textsuperscript{143} Prussia's bureaucracy began to consult businessmen.

By granting a charter in 1846 to the Association of Prussian Railroad Administrations, the government recognized the competency of businessmen to administrate railroad affairs and to propose sensible reforms. Ten railway companies attended the association's meeting in November 1846, convened primarily to draft a unified, thoroughgoing revision of the 1838 Railroad Law. The twenty-five substantial revisions proposed by the committee were published for circulation a year later by a Friedrich Kühlwetter, a Düsseldorf-Elberfeld Railway director, and two directors of the Rhenish railway, Mevissen and Quadflieg.\textsuperscript{144} Revolution interrupted this process of modifying the law. The association also presented the state with a list of its supervisory abuses.\textsuperscript{145} In addition, it began to formulate regulations for unifying both timetables and operational procedure. By 1848 the association—now expanded to
other German states—coordinated all railways to one time standard (Berliner Normalzeit).\textsuperscript{146}

The government further acknowledged the rising importance of commerce and industry in state policy with the creation of a Trade Department in 1844, which was a subsidiary office of the finance ministry, and the Royal Bank in 1846, a semipublic central bank of issue. Both changes were roundly denounced as insufficient reforms: business factions in the provincial diets had demanded a trade ministry and felt slighted with a mere department and, similarly, the Royal Bank fell far short of relieving the problems of money supply and commercial credit that had plagued businessmen in the last two decades.\textsuperscript{147} Although the Trade Department was not an autonomous ministry, the office did ensure greater participation of the business class in economic policy. Responding to the Berlin Trade Corporation in 1844, the president of the Trade Department wrote: “No laws that touch on trade and commerce will be passed, no changes in tariff policy will be adopted, no export and shipping laws with other countries will be settled without the Trade Department, which will in all such occasions consult the ranks of businessmen to apprehend their experiences and views and get to know their wishes.”\textsuperscript{148} These half-measures pleased few, but the creation of the Trade Department nonetheless showed that bureaucratic absolutism was grudgingly retooling state machinery for entrepreneurial needs.

The higher status and recognition that the state accorded the business class by the mid-1840s was further exhibited in 1846 when the government appealed to chambers of commerce for advice on whether abolishing the 1844 laws would alleviate the business depression. The response was lively but hardly showed a united front of businessmen against government economic policy. Whereas some chambers endorsed maintaining the laws (Danzig, Hagen, Krefeld, Koblenz, Elberfeld) because they were not the cause of the economic distress, others (Cologne, Aachen, Stettin, Königsberg, Magdeburg, Halle, Erfurt) strongly endorsed their abolition. For Friedrich Engels the lack of common aims among business groups and their failure to mount an effective political front indicated political immaturity.\textsuperscript{149} Indeed, only Aachen’s chamber of commerce pointed to the unfulfilled promise of a constitution to explain the crisis of 1844.\textsuperscript{150} But the division more likely points to a belief among businessmen that the Prussian state still advocated economic progress and, more important, showed signs of integrating commercial and industrial interests into state policy. Initiating a dialogue to adjust unfair laws suggested the state’s willingness to weigh business interests. And to avoid greater devaluation of the securities market in the 1840s, the government did not levy the tax on railroad companies stipulated in the 1838 law—a rare instance of a government passing up already approved revenues.

It is clear that the position of state bureaucrats toward businessmen’s
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groups (chambers of commerce, corporations, lobbies, diets, etc.) had evolved by the mid-1840s. The Prussian state bureaucracy's longstanding claim of governing effectively in all areas of public life had worn thin among entrepreneurs. It was evident in numerous areas of economic life that the state lacked expertise, and, significantly, the state tacitly acknowledged this. In matters of taxation, tariffs, trade relations, transportation, and industrial development, the state bureaucracy did not always follow its traditional procedure of autonomously formulating policies and instead availed itself of business groups' views for drafting legislation. In matters of banking, credit, and commercial law, such business groups as the Berlin Trade Corporation ceased to be merely councilors but rather became technical experts in drafting policy. Kaelble's research on Berlin businessmen shows that in the 1840s state bureaucrats yielded ground to allow bankers, merchants, and businessmen into the “decision-making sphere” in matters of commercial and credit laws. Although possessing no formal right to participate in policy decision making, business elites were expanding their participation in governmental affairs with meetings and written recommendations.

For certain business elites, then, a qualitative equality existed between themselves and bureaucrats. Hansemann wrote in 1839, “I speak and write freely about the deficiencies of the bureaucracy to people in high places—very high places—and none can fault me and must hear me whether they like it or not.” In his memoirs, Rudolf Delbrück, an official in the ministry of finance, acknowledged the respect that such businessmen as Hansemann commanded in questions of commercial and industrial policy. In one instance, Delbrück recalled feeling “ashamed” when a position paper on tariffs in 1846 by “outstanding” Rhenish businessmen was brusquely dismissed by the finance minister; the shame stemmed from the misguided arrogance of a minister not heeding the views of men who were self-evident authorities on the question of differential tariffs. Although examples of haughty bureaucratic behavior toward the business class persisted, it is because of such civil servants as Delbrück who respected the views of businessmen that critical negotiation, not outright opposition, remained for many businessmen the best means of changing bureaucratic policy. The probability of bourgeois entrepreneurs finding like-minded middle-class bureaucrats was great. “Bourgeois membership,” writes Eric D. Brose, “in the ministries, institutes, agencies, corps, and services which made up the state stood, variously, between 46-100 percent.” The blurred line between business and government interests can also be seen in how chambers of commerce reacted to the legislation against unfettered stock speculation. Although the law of 1844 was patently hostile to the railroad industry, some business circles agreed with the government. The Berlin Trade Corporation, for example, stated in 1846 that diverting the flow of
capital away from railroads would help settle the crisis, thus endorsing the state’s attempt to rein in the corporation’s business partners in Cologne, Breslau, and Aachen. This endorsement is a reminder of the care one must take not to exaggerate the distance that stood between the business class and the bureaucratic-noble elements of the Prussian establishment.

The division between the public and private spheres is further blurred by an examination of the careers of businessmen and bureaucrats before 1848. Many state officials worked for railroads as engineers, geologists, legal advisers, and directors. The Rhenish Railway directors Ammon, Open, and Hauchecorne were all civil servants on leave, as were the engineers Pickel (Rhenish Railway), Neuhaus (Berlin-Stettin Railway), Hermann (Berg-Mark Railway), Hartwich (Stargard-Posen and Rhenish railways), and Henz (Rhenish Railway). Friedrich Wilhelm von Reden, an official in the foreign service in the 1840s, also worked as “special director” of the Berlin-Stettin Railway. Friedrich Kühlwetter, a civil servant who later became a minister and a provincial governor, was a director of the Düsseldorf-Elberfeld Railway in the 1840s. Hans Viktor von Unruh, the director of the Magdeburg-Leipzig line and later a revolutionary leader, began his career as a state engineer. The lieutenant colonels Podewils and von Kräwel were directors on the Berlin-Hamburg and Berlin-Frankfurt railways respectively. The Puttkammers, a family of Junker civil servants, invested heavily in the Berlin-Potsdam line. Robert von Puttkamer used his influence as a company director in October 1845 to persuade Provincial Governor von Meding to secure a state loan for the railway.

Ernst von Bodelschwingh, the Rhenish provincial governor in the 1830s, complained in 1838 that a Rhenish government councilor and other officials defended the interests of joint-stock companies all too eagerly, owing to their investments in them. Conflicts of interest grew so great in the bureaucracy and the officer corps that the king issued a secret decree in 1844 barring further direct involvement with railroad finance. In short, business and government circles overlapped. Businessmen drew on both technical experience and political connections when employing state bureaucrats. Conversely, many officials welcomed new economic sectors that offered good salaries to professionals frustrated by the lack of advancement in civil service in the 1840s. Railroad directors were also successful in attracting influential nobles to the business. The Hohenzoller Prince Carl, Fürst Radziwill, and Graf zu Dohna were just some of Prussia’s high-ranking nobles who sat on “honorary” railroad committees in return for railway shares. The porous divisions separating government and business perhaps encouraged businessmen to work within the bureaucratic system and not categorically oppose it. The above discussion reveals the empirical weaknesses of characterizing the Prussian state as pre-
dominantly dominated by the interests of nobles (Junkerstaat), or by a government whose officials retained a caste-like loyalty (Beamtenstand) which superseded interests of class. Historians should jettison both explanations of the Prussian state and instead recognize the growing interpenetration of state and society in the 1840s that forced the Prussian state to reconstitute its ruling establishment during the first industrial revolution.

The closely knit web of relations that existed among businessmen, bureaucrats, and nobles, however, did not preclude businessmen's criticism of governmental politics. Not only did businessmen express their annoyance at the state's dilatory tempo in responding to the needs of modern finance and industry, but they also objected to the arrogance of the Prussian state in delaying further the promulgation of a constitution. The publication of Friedrich Wilhelm III's testament in 1840, which directly referred to a "central assembly of the estates," renewed the constitutional movement, and such entrepreneurs as David Hansemann, Gustav Mevissen, Hermann von Beckerath, and Ludolf Camphausen—all railroad directors—were among the principal spokesmen of Rhenish liberalism. These men strove to transform Prussia into a constitutional monarchy founded on the rule of law. Writing for an American newspaper in 1852, Friedrich Engels wrote that by 1840 the bourgeoisie of Prussia had "arrived at a stage where it found the development of its most important interests checked by the political constitution . . . [and] assumed the lead of the middle-class movement of Germany."

The conflict between business and absolutistic government came to a head in 1847, when Friedrich Wilhelm issued a patent on 3 February calling for a United Diet. This was hardly the king's wish—state finance necessitated it. Among the more pressing financial projects was the so-called Eastern Railway. Although the king's primary goal in creating the Railroad Fund was to build a line between Berlin and Königsberg, the province of Prussia still had no railroad. The link between the eastern provinces and the capital was economically important for Junkers and militarily necessary for the Prussian army, but it offered little attraction for private investors. When the lack of transportation prevented available grain stocks from relieving starvation in the eastern provinces, the pressure to build mounted. Despite the lack of interested entrepreneurs, the king gave orders to begin preliminary work in October 1845. The Eastern Railway's construction, however, demanded thirty-three million thalers. After several conferences with the cabinet in 1846-47, the king decided to build it at state cost.

The United Diet consolidated representatives from the eight provincial diets into a central body that, if Friedrich Wilhelm III's ordinance of 1815 and 1820 had been followed, would have assembled annually and had the power to approve legislation, taxes, and loans. But Friedrich Wilhelm IV's patent
of February 1847 to assemble the diet did not follow this prescription. It made no mention of the constitutional promise of 1815. Under the patent the king alone could summon the body, which was composed so that the noble estate predominated. Although the patent recognized the United Diet's power to approve new taxes and loans, the diet had no power to initiate legislation. In the event of conflict, the king could dismiss the chamber and return to the Standing Committee and provincial diets. In response to the king's pronouncement that no piece of paper be permitted to come between himself and his people, Rhenish liberals drew up a statement of eight points that distinguished their conception of the United Diet from the patent.

Heinrich Simon, a lawyer from Breslau, best expressed liberals' disappointment with the king's patent in an essay, "To Accept or to Refuse?" in which he exhorted the chosen deputies to boycott the United Diet. Liberals did not boycott but instead used the diet as an "organ of opposition against the constitutional conceptions of the king." The range of political issues debated at the United Diet was broad, but the most demonstrative oppositional action taken by liberals was their refusal to grant credit to build the Eastern Railway. "If the deputies could not meet regularly and could not control finances," August von der Heydt declared on the floor of the diet, then they must "take the uncomfortable, highly embarrassing, but necessary step of denying assent to all loans." More succinctly, Hansemann stated: "In matters of money, friendliness ends." Put in the humiliating position of stopping all work on the Eastern Railway, the government parried with the statement: "The government refuses to develop the United Diet further into a constitutional parliament." With the Diet dismissed, the hopes for legal constitutional reforms in Prussia dimmed. Political frustration compounded by unemployment, bad harvests, food riots, and, most important, news of revolution in Paris brought revolution to Berlin in March 1848.

The United Diet offers, indeed, a dramatic closing to the Vormärz period in government-business relations, a climactic end in which a formally constituted political body that included Prussia's leading business elites rejected the crown's political manipulations to forestall constitutionalism. But it would be wrong to place too much emphasis on this event as an encapsulation of how government-business relations developed in the 1840s. Although the Diet's proceedings emphatically stressed entrepreneurs' oppositional stance to the state, relations between businessmen and government officials in the 1840s were not one-dimensionally negative. An examination of the efforts of private railroad companies to assert their interests reveals the noteworthy point that business relations to the state had improved by the mid-1840s. The creation of the mixed system for railways, greater consultation with chambers of commerce over economic legislation, increased influence of railroad directors on
railway policy, and the select penetration of leading business elites into the bureaucratic decision-making process tokened a process of accommodation, albeit flawed, and not irremediable alienation from the state.

The relationship of business elites to the state was multisided, and business politics must be weighed equally with formal parliamentary politics to achieve a composite assessment. Although political rhetoric highlighted the differences between state and society in 1848, doubly underscored by social distress and governmental paralysis, the perspective of business politics suggests that the Revolution of 1848 does not represent a complete breakdown in government-business relations. In many areas of economic activity, relations were on the mend. Such railroad entrepreneurs as Camphausen, Beckerath, Hansemann, Mevissen, Diergardt, Lewald, and others clashed with government bureaucrats when advocating a constitution that would move Prussia beyond bureaucratic absolutism toward a representative government that could better respond to the needs of public society. But these aspirations should not overshadow the more diffuse political advances in economic policy, whose cumulative impact made business elites generally shift closer to the state rather than away from it. When looking at business politics and business practices of entrepreneurs during the 1850s, one sees important strains of continuity with the Vormärz period. The practice of criticizing the state while simultaneously working with it, so evident in the 1840s, would likewise characterize the political-economic behavior of the business class in the postrevolutionary period.

The Railroad Question in 1848

The tumultuous days of March in Berlin witnessed slain demonstrators, the erection of barricades, and a brief period of anarchy. In response to the mobilization of popular forces, the king appointed Ludolf Camphausen and David Hansemann as ministers to demonstrate the crown's receptivity to change. Although the “liberal cabinet” of Minister-President Camphausen was largely cosmetic (key cabinet posts remained in the hands of conservative nobles), the two businessmen nonetheless sought to reform economic policy. They transformed the private A. Schauffhausen'sche Bankverein into the first joint-stock bank in Prussia, keeping afloat commercial investments affecting over 200,000 workers. In April 1848 the two ministers also created the ministry of trade, commerce, and public works, thus elevating the status of commerce and industry in state affairs. Furthermore, this ministry drafted reforms for municipal, county, and provincial governments in the eastern provinces, and it submitted bills to tax both landed estates and the annual income of nobles.
By emergency decree the ministry also resumed work on the Eastern Railway, primarily to remove radicalized unemployed workers from Berlin.\textsuperscript{181}

The Camphausen-Hansemann ministry lasted until June 1848, but Hansemann stayed on until September as finance minister in the Auerswald Cabinet that replaced it. During this time Hansemann, in cooperation with Trade Minister Karl Milde, a Silesian merchant and investor in railroads, turned his attention to the railroad question. In August Hansemann devised a plan for the government to purchase all existing private railways, monopolize the industry, and further develop Germany's railroad network under the aegis of the state.

After 1846 railroad companies suffered considerably from the depressed business cycle. By 1848, their future was bleak. "With the current critical state of all financial conditions," wrote Hansemann in a memorandum, "the dissolution and bankruptcy of numerous domestic railway enterprises is to be feared."\textsuperscript{182} Three railway companies, he noted, had halted construction; many had defaulted on interest payments; and most paid little or no dividend money on common stock. Many investors who had bought shares on margin ceased to pay their quarterly installments.

Hansemann believed that the business depression compounded by revolution jeopardized the ability of the railroad industry to develop under the joint-stock principle. The 109 million thalers invested in railroads—"a considerable portion of the national wealth"—was threatened (65). The loss of this capital would not only affect railway companies and their investors, who came from all social classes, but also laborers "who work and produce for the railroads, namely, [those working in] iron and coal works, machine factories, passenger car and freight car factories, brickworks, and the many smaller trades employed by them" (67). The military dimension—"national defense"—was also to be considered (77). Hansemann further noted the local distress. Regional governments, whose administrative spheres were economically dependent on railroad construction, had petitioned the state to fund building to avoid further economic hardship. Perceiving railroads as the foundation of Prussia's industrial economy, Hansemann sought to avert a collapse at all cost: "There is no doubt that the government must forcefully intervene" (65).

Aiding individual railways, Hansemann believed, was not enough to avert this crisis; selective aid would only raise charges of favoritism. Rather, he proposed "that the state complete the construction of unfinished railways, take over the direction and administration of railways, and gradually unite all railways into an organic whole in the interest of the common good." He concluded, "In other words, the railroads must gradually become the property of the state" (67). Under the laws of 1838 and 1842 the state could acquire private railways over a period of fifty to seventy-two years, depending on how much the Railroad Fund had collected and the extent of government
financial involvement. Hansemann's scheme, however, envisioned immediate acquisition at an extremely good price. For the price of fifty million thalers, all existing railroads plus the Eastern Railway, valued together at 140 million thalers, could come under state control (75). The state would raise thirty million through government bonds, ten million from treasury notes drawn on the collateral of state domains, and ten million from "railroad notes [Eisenbahnscheine]," which would circulate on the stock market (82, 86).

The memorandum is not explicit on whether fifty million would buy out all stockholders or just a portion of them. The figure suggests that Hansemann initially strove to make the state the majority stockholder in each company, enabling the state to effect a complete takeover when money was available. On the other hand, Hansemann might have entertained the notion of immediate state acquisition in the catastrophic market of 1848. In either case quick action was needed. The scheme turned on the desperate mood of the financial world. Hansemann cautioned that the state should neither expropriate property nor use the stock market to expedite the takeovers. The former would violate property laws, the latter would result in price gouging (73). Instead the government should negotiate with company directors, who were left with the choice between accepting the state's terms or facing imminent bankruptcy. Because the government would convert all common stock into 4 percent state paper, stockholders would welcome the state action and pay no heed to directors' advice to hold out (74-75). The state, he added, could balance its losses by streamlining overhead costs, enabling it to operate more efficiently than could private companies (82, 85).

For a businessman who for two decades had nothing but contempt for the inefficiency of state officials in commercial enterprises, Hansemann's claim that administrative costs would be cut with state bureaucrats was, to say the least, remarkable. The evolution of his vacillating position toward the state is largely connected with the business trends of the railroad industry. In the early and mid-1830s, when private financing of railroads seemed unlikely, Hansemann advocated state ownership. After 1837, and after the successful and profitable stock subscriptions of several large German railroads, Hansemann shifted his stance from complete state ownership to supplemental support of private enterprise. When railroads made money in the 1840s, Hansemann praised private directors, who were accountable to their stockholders; civil servants, he claimed, could never match their efficiency. Yet when the business cycle radically turned downward in 1846 and made worse by revolution, Hansemann again shifted his view.

Hansemann's memorandum in 1848 exhibited the characteristics of the practical businessman, for it sought to cut a deal beneficial to all involved parties: the state, the stockholders, and, above all, railroad entrepreneurs.
Whether the customer was genuinely considered is doubtful.) Hansemann’s plan enabled the business class to avert a total financial disaster. By cutting their losses and receiving remuneration from the state, entrepreneurs could shift their investments to new areas. Business cycles shaped the political attitudes of this important representative of the business class.

Hansemann’s scheme was never put into action in original form. Drafted in August, the plan died when the Auerswald-Hansemann cabinet was replaced in September 1848 by the conservative (and economically more cautious) cabinet of Graf von Pfuel. On 1 November the king appointed Graf von Brandenburg as minister-president and Otto von Manteuffel as minister of agriculture. Manteuffel, a staunch advocate of bureaucratic absolutism, was viewed as the guardian of the government’s reactionary faction and succeeded Brandenburg as minister-president in December 1850.

On 8 December 1848, the king appointed the Elberfeld merchant-banker August von der Heydt as trade minister. The appointment came just weeks after the National Assembly had been moved from Berlin to Brandenburg and just days after the king promulgated a constitution by decree. This shrewd move introduced a government of mixed powers whose legislature was elected by universal suffrage. Although the constitution was put into effect by decree—thus marking yet another crucial “revolution from above”—it put Prussia on the map of representative governments. Although many liberals spurned the constitution as another example of Prussian autocracy, the news immediately stabilized financial markets. The bourse rebounded, reflecting the acceptance among business elites that order, no matter what its cost, was better than the anarchy of the “crazy year.” “As much as one scorns Brandenburg and Manteuffel and criticizes their infamous politics,” wrote the Rhenish textile manufacturer Wilhelm König, “a bad government is better than no government.”