

# **Seaborne Commerce and Railroad Rates: The Interstate Commerce Commission and U.S. Interior Development 1887-1914.**

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## **Introduction**

**Although the Interstate Commerce Commission has been much studied, its relationship to the evolution of international trade has not been investigated by contemporary scholars. This study evaluates the effects of the overlooked connection between the ICC's commitment to promote U.S. regional economic welfare and its regulation of global rail-sea transportation linkages from the 1880s to 1914.**

**Much modern historiography has understandably focused on the political-social factors that affected the passage of the Act to Regulate Commerce (aka the Interstate Commerce Act ) in 1887 because it represented a major transition in the role of the federal government in ordering economic affairs. Business historians who have focused on the railroads have differed about the significance of federal regulation through the Progressive Era. Alfred D. Chandler, Jr., for example, saw little influence of federal oversight bodies on the development of strategies and structures for the giant transportation systems that began to coalesce during the 19<sup>th</sup> century.<sup>i</sup> Gerald Berk, contrarily, contended that government played a key role in structuring the railroads through the agency of courts that played central roles in reorganizing bankrupt lines.<sup>ii</sup> Albro Martin in *Enterprise Denied*, however, argued that the misguided meddling of federal regulators undermined the industry's financial and operational vibrancy prior to World War I.<sup>iii</sup> Thomas K. McCraw in *Prophets of Regulation* noted how early regulatory agendas were reflective more of legal**

than economic imperatives.<sup>iv</sup> Gabriel Kolko has argued that ICC was ineffective because it was purportedly captured by the railroads it was supposed to regulate.<sup>v</sup> Richard White's study of the development of the transcontinental railroads also provides insight into the cupidity and waste derived from incompetence and opportunism that helped to shape contemporary public attitudes about the need for reform.<sup>vi</sup> Alfred J. Churella's excellent history of the Pennsylvania Railroad provide deep insight into the ways a leading firm accommodate to the many changes transforming the industry through the Progressive Era.<sup>vii</sup>

This study concentrates on clarifying how the ICC's implicit commitments to promoting regional economic welfare affected the development of the United States's relationship with the global economy through regulatory policies controlling the interface between sea and rail transportation. The sea provided the channel for connecting U.S. economy to the world's markets. We argue that the ICC encouraged policies, often first introduced independently by the railroads prior to federal regulation, that facilitated the establishment of efficient and economical transportation from the under-developed interior in the West and South to the seaboard and its major tributaries. This vital supply chain connected the once desolate hinterlands to the nation's largest urban centers. The seaboard was also the jumping off point to rich overseas markets, particularly in Europe. Governance of this vital nexus, as we shall demonstrate, had important impacts on the enhancement of income and wealth in sparsely populated interior regions that served as a major source of agricultural goods, particularly wheat, grains, corn and cotton. Critically, the establishment of transportation rate regimes facilitated exports and thus increased the wealth of interior locations. Another important aspect of this system was the creation of a rate system that made possible the economical transfer of manufactures, partially supplied from overseas sources, required in building up the physical infrastructure of the interior. The problem in this latter case was made more complex because of the high level of custom charges imposed on imports.

This study's analysis concentrates on the development of policies that pertained to three categories of rates for transportation services: class rates, commodity

rates and export/import rates. The railroads as monopolists sought to maximize their income by segmenting their services into several categories based on the value of service to the shipper. That is, the value of service was set at levels that enabled shippers to sell their goods profitably at terminal locations rather than reflecting the actual cost of service. This approach was followed largely because of the difficulties in determining the actual cost of service that was made complex by the necessity of allocating high fixed costs to the many products that used rail service.

Rail rates were broadly divided into four categories. First, there were six class rates that varied based on the value of the shipped item. The total cost was usually a function of distance travelled and special handling charges. Second, there were commodity rates that were essentially flat, low rates for high-volume, low unit value agricultural or mineral goods. Often, these latter rates reflected only marginal costs, without consideration of general rail expenses; as such these rates were below the total cost of transportation. As long as they were sufficient to cover marginal costs, however, commodity rates could be profitable to the railroads because they encouraged traffic that would not otherwise occur.<sup>viii</sup> This represented a major subsidy to the interior locations in assuring their economic viability. The subsidy implicit in the commodity rate system enabled the railroads to haul larger quantities of commodities which increased their asset utilization rates and their profits. Although shippers had to pay higher rates on short hauls to the marshalling points for organizing commodity shipments, this tradeoff was still attractive because of the tremendous savings achievable for long-distance transport of high volume, low unit value freight. The commodity rate system also benefitted producers by keeping distribution costs low and assuring access to distant markets. Moderate transportation costs for commodities also benefitted the ranks of urban population concentrated largely in seaside locations by subsidizing the cost of food and fuel staples for the nation's growing urban population that increased three fold from 14 million in 1880 to 42 million in 1910. This stabilization of the cost of living also helped to maintain the competitiveness of a growing industrial sector by reducing the pressure for higher wages. The third category,

export rates, were essentially commodity rates set lower to assure the competitiveness of US products overseas. The fourth, import rates, frequently were set lower as a means for distributing freight traffic between ports or to address a particular competitive situation.

Both commodity rate and export-import rates were subsidized by the more by revenue from higher grade class freight. As the ICC noted in their first annual report:

“The public interest is best served when the rates are so apportioned as to encourage the largest practicable exchange of products between different sections of our country and with foreign countries: and this can only be done by making value an important consideration, and by placing upon the higher classes of freight some share of the burden that on a relatively equal apportionment, if service alone were considered, would fall upon those of less value. With this method of arranging tariffs little fault is found, and perhaps none at all by persons who consider the subject from the standpoint of public interest.<sup>ix</sup>

Both regulators and railroad leaders recognized the connections between import and export rates in building the nation’s foreign trade. In order to attract ocean shipping to carry U.S. exports overseas, the sea carriers also had to be able to defray their operating costs by earning income from import trade. An imbalance in this commerce would force the ocean carriers to raise their charges to assure financial sustainability. Such increased costs would have an adverse impact on the salability of American products overseas. The dilemma of sea-land transport was summarized by Louis Tuttle, in 1902 in testimony before the ICC:

....the amount of traffic that can be exported from this country depends largely on the amount imported, because in order to induce ocean carriers to come here for exports they must have the opportunity to derive some profit from imports, and that this in turn requires rail rates to the interior on various kinds of imported traffic which are lower than a remunerative basis for domestic shipment.<sup>x</sup>

Although the Tariff Commission later during the 1920s studied the incidence of preferential rates for export and import commerce, its analysis did not identify the social welfare objectives favored by the ICC as a causative factor in these developments. Instead, its finding attributed rate differences primarily to responses to foreign market competitive conditions, the availability of cheaper water transportation alternatives and the drive to allocate sea-rail trade between competing ports.<sup>xi</sup> This study extends our understanding of the developments by explaining how social ideals and the desire to foster regional economic development influenced the determination of ICC policies in important ways to the matter of preferential transportation rates.

In the following four sections of this study, we examine how the ICC at this moment of history sought to balance objectives of regional economic welfare and foreign trade through its increasing power over rate regulation. The next section evaluates three systems of belief that shaped the outlooks of reform-minded federal officials who sought to connect the U.S. interior to world markets. The first was the legacy of protectionist doctrines embedded in the American System associated with Henry Clay whose origins date back to Alexander Hamilton. This combined with growing consciousness of the end of the era of global exploration that had created vast economic opportunities for Western societies and was manifest in the U.S. by the growing sensitivity to the implications of the closure of the frontier. The last was the introduction of the German ethical historicist doctrines that shaped the outlooks of key ICC officials by providing a rationale for greater governmental activism in promoting the general economic welfare. The third and fourth sections deal respectively with the problems of export and import rates and public policy. The study concludes with by indicating how the paper's findings extend the understanding of the nature of early federal transportation regulation.

## **II. Belief Systems and Rail-Sea Transportation**

The policies implemented by the ICC to reconcile national economic objectives and the control over sea-rail transportation reflected sensitivity to a variety of

beliefs about the United States and its changing position in the world at the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> century. A central issue was concern about the economic integration of the interior regions into the mainstreams of national economic development. In part, this expressed the legacy of a protectionist system whose principles were originally adumbrated by Alexander Hamilton but later more sharply defined by Senator Henry Clay and economist Hugh Charles Carey. Ideals experienced significant modification as Americans became sensitive to the need for new thinking about national economic development policy in light of the closure of the Western frontier in 1890s. One such intellectual approach influential at the early ICC was that of the German ethical historical school imported to the U.S. by returning scholars. This ideology held that government had a moral obligation to foster economic policies that broadly promoted the public welfare.

In the 1800's, a system of ideas known as the "American System" emerged which would greatly impact sea trade. Though tracing its roots in the desire of the Republic's founding fathers to strengthen the national economy, especially Alexander Hamilton, the term American System was first introduced by Henry Clay in an 1824 speech to the 10<sup>th</sup> Congress. Politicians like John Q. Adams and John C. Calhoun supported Clay in his attempt to devise a national policy with three primary and interconnected bases: protective tariffs, the development of internal improvements to enhance transportation capacities, and the creation of a national bank.<sup>xii</sup> Under the American System, tariffs would no longer be designed with revenue in mind, but would explicitly be employed in order to either protect infant industries or encourage the development of new industries.<sup>xiii</sup> The funds from the tariffs would be used for internal improvements, a catch-all term for improvements in the nation's transportation infrastructure. Early on, such developments were envisioned as encompassing the building of inter-state roads and canals, as well as improvements to existing rivers and harbors; later, railroads also became part of the discussion. These projects were seen as necessary to, in Calhoun's words, "bind the nation together", and they were also essential to the development of the Western regions of the U.S.<sup>xiv</sup>

One critical dimension of this system was the creation of a transportation infrastructure to connect the interior to the coasts and major waterways where population and industry were concentrated and to link to overseas markets. Prior to the Civil War, however, the ability of national government to foster internal improvements through significant work was confined to improving unsafe conditions on the rivers and lake, especially the Mississippi and its tributaries.<sup>xv</sup> Adoption a truly national plan for improvements, part of the platform of the Republican Party, waited until after the Civil War with the expansion of the railroads. The economies of the interior regions particularly in the South and West depended on the income from producing primary commodities such as cotton, wheat, corn, beef, pork, tobacco and lumber. Besides bolstering regional income, the distribution costs of these food and fuel staples affected industrial competitiveness by their impact on living standards and consequently factory wages in the nation's manufacturing sector. Moreover, low cost transportation also facilitated sea trade by facilitating the export of surplus output to foreign markets. In addition, the railroads benefited from increasing freight and passenger revenues through the growth of the regions they served.

Henry Charles Carey, one of America's leading economists and proponents of the American system, recognized that the costs of protective tariffs weighed most heavily on the producers of commodities. However, he felt transportation costs resulted in the greatest, most pernicious cost to producers. Producers must transport their products to manufacturers and consumers, and the greater the distance between the two, the greater the costs. The answer, he felt, was to decrease the distance between producers and manufacturers.

The man who emigrates to the West obtains his land for little money, but his horses, his cattle, his wagon, and his furniture have cost him five times more. Obligated to send his produce to the distant market, he pays for the use of other horses and wagons, cars and engines, drays, horses, and ships — the cost of all this circulating capital being so great, that his land continues of little value. The blacksmith, the carpenter, the miller, the millwright, the spinner, and the weaver, however, come nearer to him ;

and now he fit in a more instant market for his products —giving to his land a value thrice greater than that of all the movables of which he is possessed.<sup>xvi</sup>

Carey used simple trades in his example, but he extended this process to all manufacturing activity. To Carey and his followers, railroads were the most important means to decrease the “waste” associated with transportation.<sup>xvii</sup> Absent trains and other internal improvements and the development of regional manufacturers, “We waste, daily, the powers of earth and air, for want of little machines that would enable us to use them; we waste the faculties of our people because there is no demand for them.”<sup>xviii</sup> Intensive development of a region would bring producers and manufacturers in close proximity and create domestic markets, effectively achieving industrial self-sufficiency.<sup>xix</sup> In the US, however, the historic pattern of the economy had been on exporting raw commodities. Only in a few areas—notably New England—had manufacturing developed. In the main, a domestic market for US commodities remained unrealized.<sup>xx</sup> Reaching this state would require the temporary use of protective tariffs to allow infant industries the opportunity to become established.

The need for more intensive development of domestic resources was also affirmed by those intellectuals concerned about the ending of the age of discovery that had transformed Western society since the 15<sup>th</sup> century. Turning especially to the US experience, historian Henry Jackson Turner sensed the beginning of a new national outlook with the closure of the Western frontier that had been so central to the American experience since colonial times. One result was the recognition of need to conserve and use more efficiently a limited, dwindling pool of natural resources. The federal government responded to the new circumstances through the programs of several new agencies associated with the development of the heartland including the Departments of the Interior (1849) and Agriculture (1862). The ICC was another integral component of federal involvement in regional development. By its ability to influence the cost of transportation from the interior to the seaboard, the ICC played an important role in the promotion of regional economic welfare, especially the relatively underdeveloped interior regions of the South and the

West. The growth of these areas benefited from the subsidization of transportation costs through the manipulation of the rate structure. From the perspective of global oceanic trade the modification of these contracts were critical.

The influence of German ethical historicist thinking in governmental circles was also important. At the ICC, this viewpoint was reflected via the involvement of Henry Carter Adams, the agency's chief statistician and resident intellectual from 1887 to 1911. After graduation from Grinnell College in his home state of Iowa, in the heart of the nation's most productive areas for raising wheat and corn (i.e. maize), Adams rejected an opportunity to follow his father in a career in the ministry and went on instead to earn the first doctorate granted by The Johns Hopkins University where he was a student of Herbert Baxter Adams. Henry Carter Adams's intellectual perspective was further shaped through post-graduate study at the University of Berlin in the seminar of Ernst Engel, a leading welfare economist who created the annual statistical archive for the Prussian State railroad system. Here Adams become imbued with the tenets of the German historical idealism which taught that the nation state should play an active role in economic ordering and should identify from historical analysis long-term social problems that required resolution. To German historicists, the railroads with their efficient transportation capacities were a key agency for promoting social welfare.<sup>xxi</sup> Adams's historicist bent was instrumental in monitoring and evaluating railroad rate structures that often shifted income in ways that helped to strengthen the economic development of interior regions. This approach was antithetical to the *laissez faire* beliefs embedded in traditional classical economic theory that had long held sway in business circles in Britain and the United States.

### Exports and the Pathways to the Sea

The subsidization of rail rates that built up the income of interior regions of the United States began prior to the organization of the ICC in 1887. The railroads that served these regions had a strong interest in promoting economic

development to increase--- rail service demand and profits. This could occur by enhancing the economic viability of the land-locked interior by establishing connections to the sea and its tributaries. Most of the nation's major urban markets and terminal centers were contiguous with major bodies of water, affording the advantage of access to low cost transportation because of the intersection of multiple rail and sea carrier modalities. Some of the numerous examples of this change include: the Erie and New York Central connecting the North Central locales east of Chicago to New York port, the Illinois Central connecting New Orleans to Chicago and the Union Pacific linked locations in the Central West beyond the Mississippi and Missouri Rivers to San Francisco and Los Angeles. These enterprises functioned as vital extensions in longer global supply chains through sea connections to overseas markets provided by maritime shipping companies.

The railroads interfaced with ocean going shipping industry that was beginning to experience greater cartelization.<sup>xxii</sup> They sought to stabilize markets by forming regional cartels or "conferences" that set rates and frequently pooled income.<sup>xxiii</sup> Trade to much of Northern North Germany, Scandinavia and the Baltic, for example, became dominated by the "Baltic Conference" dominated by the Hamburg American and the North German Lloyd Lines.<sup>xxiv</sup> Preferential or exclusive freight routing agreements were negotiated by U.S. railroads and foreign steamship companies through virtually all major U.S. ports except New York.<sup>xxv</sup> The Boston and Maine Railroad, for example, had a preferential contracts with the British Furness and Withy Line and the U.S. based Dominion Line for connections to Liverpool.<sup>xxvi</sup>

The larger ocean shipping enterprises had an important competitive advantages. They provided regular service between ports that enabled shippers to use forward contracts to finance their goods transfers, and reduce uncertainties in planning the acquisition of cargo space. These carriers-- working often in conjunction with express companies--reduced transaction costs through the use of through bills of lading which controlled shipment movement from its origin to its delivery point overseas and detailed

arrangements for insurance, special handling, cargo description and routing, thus avoiding the need for costly reprocessing at intermediary points.<sup>xxvii</sup>

The large carriers also invested in faster, larger, safer ocean liners that enabled shipper to qualify for lower insurance charges. Ship operators could improve the competitiveness of their lines by lowering the costs of carriage for particular favored cargo classes. In turn, the larger railroads, that usually dominated port lighterage (barge transfers), dockage, goods handling and warehousing, sought to secured close relationships with the maritime feeders of import and export freight by negotiating attractive arrangements for such services. The New York, New Haven and Hartford Railroad, for example, controlled most of the rail and coastal shipping feeder lines from New England to New York port.<sup>xxviii</sup> Working through favored express companies both the rails and shipping companies sought to develop mutually beneficial contracts for channeling freight.<sup>xxix</sup> Favorable arrangements could also derive the support of shared community of interests involving interlocking directorates between rail and sea carriers.<sup>xxx</sup> The International Mercantile Marine holding company, for example, included on its board representative of the House of Morgan which had played a major role in railroad finance and recapitalization during this period. The shipping companies also provided deferred rebates on freight charge to loyal customers.<sup>xxxi</sup>

A second category, “tramp lines” which in 1912 included 4100 ships and accounted for about 75 percent of the ocean tonnage competed primarily on the basis of price; they specialized in the cartage of primary commodities where the meeting of tight shipping schedules was not as critical as in the case of the ocean liners. They would often congregate in ports where demand for service would be high because of the harvesting of a major crop such as cotton or wheat. Their large numbers and cutthroat competition helped to prevent the monopolization of ocean shipping.<sup>xxxii</sup>

One factor favoring the development of rates for combined sea-land carriage was the character of the demand U.S. goods in foreign markets. The most important U.S. exports in value terms during the closing decades of the 19<sup>th</sup>

century were products of the interior South and West, namely cotton and wheat and grain. However, pressures for cheaper export rates increased because of rising competition from foreign suppliers. European markets were increasingly supplied by imports of Argentine, Canadian, Polish and Russian wheat and Indian and Egyptian cotton. The total value of U. S. exports grew modestly from \$836 million in 1880 to \$1.4 billion in 1900, (+ 40 percent), but agricultural goods shipments had leveled off. During this period breadstuffs (principally wheat, flour and other grains) exports increased from \$246 million in 1880 to \$263 million in 1900 (+ 7 percent) while cotton increased from \$211 million to \$242 million (+ 15 percent). Moreover, the composition of U.S. exports changed radically during the early years of the 20<sup>th</sup> century. During the period 1900-1910, total exports increased to \$1.7 billion (+18 percent). Although manufactured goods in 1900 had constituted 35 percent of the value of exports, its share grew to 49 percent by 1913. In the latter year, cotton remained the largest single export category at \$502 million but breadstuffs had declined sharply to \$133 million. Iron and steel products moved into second place valued at \$305 million in 1913, a three-fold increase over its 1900 level.<sup>xxxiii</sup>

Rates were also affected by competition between U.S. ports for export traffic. Prior to federal regulation the Eastern Trunk Line Association that defined a freight rate regime for traffic between Chicago and the Northeast seaboard that was the primary channel for the transfer of agricultural commodities overseas. The Association formed several committees that included representative of the major rail lines to equalize the rate on export shipments as a means for avoiding destructive rate wars between New York, Boston, Philadelphia, Baltimore and Norfolk. This was achieved by creating rate differentials for commodity exports that took into consideration differences in distances and local facilities as compared to the costs of the largest, most efficient port of New York. Baltimore enjoyed the first such differential providing it with a ten cent a hundred weight advantage in handling grains. These arrangements, however, frequently were violated.<sup>xxxiv</sup>

Interior locations benefitted, too, from the advent of competition from Gulf ports, particularly New Orleans and Galveston, whose capacities to serve export

markets grew during the 1880s because of improved railroad and dockage facilities. The Gulf ports became the focal point for exports of principally overseas shipments of Texas cotton and Kansas flour and wheat. To take market share, local railroads began quoting “export rates” that were lower than the already low commodity rates for domestic shipment. The export of flour, for example, from Kansas City shipped through New Orleans cost 27 cents per hundredweight as compared to 32 cents for product earmarked for the domestic market.

In the case of the Pacific coast, the railroads were compelled to develop low export rates because of the direct competition of sea carriers to major markets. The transcontinental railroads also began to quote special export rates through both Gulf and Northeastern ports for canned goods, raisins, dried fruit, oranges, nuts and other agricultural produce. Pacific coast ports also received cotton primarily from southern and western roads for trans-shipment principally to Japan.<sup>xxxv</sup>

The ICC response to the initiatives taken by the railroads in the export markets evolved over time. The ICC legislation had been drafted to address the social equity concerns arising from the huge concentration of power that arose with the railroads. Targeting unfair competitive practices was seen as benefitting anyone at a disadvantage in dealing with this monopoly power; it followed in the tradition of American abhorrence to bigness and centralized power that had earlier destroyed the national bank and which had doomed many national improvement plans, like the 1924 Bonus Bill.<sup>xxxvi</sup> Adherence to this objective was evident in the fact that while the ICC’s actions promoted the economic development of the interior South and West, they also mandated transparency of rail charges to prevent hidden rebates or discriminatory practice. In the Food Investigation in 1890 the ICC proscribed several commodity rate structures for grains, wheat and corn from interior agricultural districts to Northeastern and Gulf ports as unreasonably high based on its analysis of distances and railroad costs and finances. It also required that land transport charges should be same that the railroads advertised for domestic traffic. In the New York Produce Exchange and the Kemble cases, the ICC also affirmed the legality of port

differentials arguing in effect that they were not discriminatory preferences but rather acceptable economic mechanisms for the equalization of traffic flow through major ports. In these cases and through other pronouncements the federal agency militated for full disclosure of the separate costs for sea and rail transport that frequently had been obscured in through bills of lading for exports.

The ICC's power over export rates, however, were curtailed by the Supreme Court in the *Import Rate Case* in 1896.<sup>xxxvii</sup> The ICC had mandated that the railroads use only domestic rates for developing charges for international goods shipments. The Court concluded that the ICC's rules unfairly restricted commerce by failing to consider the impact of competitive rates from water-borne shipping or the need to adjust rates to accommodate competition in overseas markets. Two years later the Court in the *Smyth v. Ames* case rebuffed the ICC in its efforts that seemed tantamount to determining maximum rates, a power not granted in the original Act to Regulate Commerce.

In spite of these and other setbacks to the exercise of its authority, the ICC began to develop policies consistent with the parameters of contemporary law that affected export rates. In 1899, *In the Matter of Export Rates at Points East and West of the Mississippi River*, the ICC held that higher export rates to the seaboard could not discriminate in favor of points of origin against intermediary points. In this instance, the ICC addressed the anomalous situation where corn from Iowa moved to eastern ports at considerably lower rates than from such intermediary points as Chicago and Peoria, Illinois.<sup>xxxviii</sup> During that same year, *In the Matter of Relative Rates upon Export and Domestic Trade in Grain*, the federal agency analyzed the trend in export rate setting to identify those that seemed unreasonable and thus in contradiction to the Act to Regulate Commerce. In so doing the ICC followed the guidance of the Supreme Court in the *Import Rate Case* holding that that export rates could be lower than domestic rates in order to compete with cheaper water borne transportation and in order to help shippers to meet competition in foreign markets.<sup>xxxix</sup>

However, in this latter case the ICC became increasingly sensitive to some of the welfare implications of current export rate practice and regulation. The agency rejected the notion that particular export rates should become permanent because market conditions could vary over time. Moreover, they concluded that special export rates should not be undertaken to subsidize foreign consumers. It was this latter circumstance that the analysis in this case revealed. The international arrangement created a tradeoff that was not uniformly beneficial to domestic economic interests. On the positive side, it helped farmers by increasing the volume of product exports and it helped to increase U.S. export earnings. The arrangement increased railroad tonnage but profits only marginally increased. On the negative side, however, by maintaining higher market prices such shipments reduced domestic supply and thus did not lower the cost of living in the nation's fast growing urban centers. Rather low export transport costs on wheat created the anomalous situation where European millers could produce flour for amounts less U.S. millers who had to pay higher domestic transportation rates for their grain supplies. (The main exception was millers in Minneapolis who were situated close to the wheat fields and could take advantage of low sea rates by shipping their flour directly to Europe through the nearby port of Duluth.)<sup>xi</sup>

The reliance on special export rates went into decline during the Progressive era because of the passage of new legislation that enhanced the ICC's power over rates and the rules for reporting rate changes. The Hepburn Act of 1906 empowered the ICC to determine maximum rates for service, but the law also required the filing of rate changes ten days in advance of their effective date with the ICC.<sup>xii</sup> This latter requirement induced the railroads serving the trans-Pacific trade through Western ports to abandon special export rates except for cotton and cotton linters in 1908. The 10 day notice requirement of rate changes was disadvantageous to the transcontinental rail lines because it enabled transportation competitors shipping to Asiatic markets through the Suez Canal to exploit market opportunities through immediate under bidding. Federal power increased under the Mann-Elkins Act of 1910 which empowered the ICC to determine minimum rates of service.

In 1914, special export rates remaining were limited to a small number of items for which the United States had enjoyed a comparative production advantage. Although demand for wheat, flour, corn and grains had leveled off, this group still retained importance. What began to emerge was the subsidization of some higher value-added manufactures that normally would be shipped using higher class rates rather than lower export rates. The emerging categories included pig iron, railroad tracks and agricultural machinery. These export rates also indirectly benefitted the interior South and West by helping to subsidize infant industries whose goods were vital to the development the interior South and West. It was also critical in enabling U.S. companies to compete with fast modernizing countries like Russia and Japan.

Although the number of export rates remained low and the impacts of these subsidies had varied impacts on market participants, overall they facilitated the achievement of the ICC's implicit welfare objective relating to building income and supporting economic development in the interior West and South. As the nation industrialized, the overall impact of export rates declined. New Industrial products became more important because they had higher unit value than agricultural goods and, thus, could better bear the burden of higher class rates. Only three industrial products benefited from export rates and they indirectly benefitted the building up of former frontier regions. Moreover, railroads serving Pacific and Atlantic ports in the early years of the 20<sup>th</sup> century began to abandon export rates partly as we have seen because of the ICC's reporting requirement but also probably because may have not been that profitable. The gulf ports, on the other hand, having created another market outlet for farmers in the South and Central West continued to use export rates to divert traffic primarily from the Eastern seaboard.

### Imports

The traditional plaint of agricultural interests in the 19<sup>th</sup> century was that they bore an unfairly heavy burden in the efforts under the American System to protect developing domestic industries through the erection of high customs

barriers on imported goods. The tariff barrier, however, proved to be somewhat porous and susceptible to penetration through the offering of special rates on some imported goods. Although many factors were cited in justifying special import rates, the ICC actions again as in the export cases, maintained a strong, abiding proclivity for finding in favor of contractual arrangements that fostered the economic development of the South and West.

Although high custom duties during the period of study curtailed the potential for international trade, the dollar value of imports increased significantly. The value of products shipped into the United States increased from \$668 million in 1880, to \$ 850 million in 1900 (+ 27 percent) and then again to \$ 1.8 billion in 1913 (+ 271 percent over the 1880 level. Although sugar at \$100 million had been the single most important import in 1900, it would level off at about this level in the future. The largest growth centered in crude and semi finished products necessary for the nation's industrial expansion. These two categories amounted to \$984 million or 54 percent of the total value of imports in 1913. They included such items as rubber, tin, long-staple cotton, lumber, cabinet wood, uncut diamonds, some specialty chemicals and certain grades of iron and steel. The value of finished manufactures imported amounted to \$411 million or 23 percent of the 1913 total but like sugar exhibited a flattening trend. In serving this trade, sea-rail rates played a critical role in allocating shipments between rival ports.<sup>xlii</sup> The most efficient during this era was New York. In spite of the previously mentioned differentials allowed its Eastern rivals, this port accounted for 60 percent of the annual value of import trade. The New York gateway was favored by European importers because of its deep, extensive and protected harbor and its excellent water and rail communications to the interior. The concentration of transportation facilities increased competition between carriers and had the effect of decreasing transportation charges. Moreover, it was a deep well equipped harbor with large depots, rail marshalling yards and substantial dock, lighter and storage facilities.<sup>xliii</sup>

Ports on the Gulf and in the South that competed with New York by offering discounts on the export of food staples had to offer discounts to attract imports. In this region, shipping distances to Europe were longer, insurance rates were higher and the pattern of return cargo to Europe was highly seasonal. Port competitiveness could be enhanced by offering discounts on ancillary services such as offloading, storage and demurrage. Such accommodation attracted shipping companies by helping to assure profitable inbound voyages and avoiding the problem of only being able to offer outbound traffic of cotton and grain. One example of the competitiveness of sea-rail transport through the Gulf ports was the ability of the Marshall Field Company in Chicago to import dry goods from England that could be sold competitively in the USA at locations within 50 mile distance from New York City.<sup>xliv</sup>

On the Pacific coast, the railroad competed with seaboard shipping in supplying the major hub cities like San Francisco, Los Angeles, and Portland. Initially, the Pacific coast was served by clipper ships sailing around Cape Horn. In 1854, the 180 day clipper ship voyage was substantially reduced by the construction of a railroad connecting Colon on the Caribbean to Panama on the Pacific for the trans-shipment of freight. Sailing times were further reduced though the introduction of steam ships. In 1911, the competitiveness of sea transport increased with the opening of the Panama Canal. Competition from transcontinental railroads first appeared in 1867 and would grow rapidly during the following three decades. The transcontinental railroads provided a flat commodity rate to the major Pacific ports from any through point between New York and the Missouri River towns. The low rates subsidized the transits of critical materials such as iron and steel ingots and billets, tools, machinery, cotton and woolen goods that were critical for regional economic development. While realizations on long-distance service remained constrained, the railroads could increase their profits by charging higher rates in the relatively short hauls connecting major ports to the growing communities west of 115 degrees longitude (roughly the Rocky Mountains).

Although rate conferences sought to regulate ocean-shipping charges, these efforts at cartelization often proved ineffective. This was due partly to the competition from opportunistic tramp liners eager to compete for business by undercutting the posted rates of the various conferences. In the years preceding regulation, there was also in the years prior to regulation a significant degree of opacity in the contracting between the railroads and ocean carriers. Through bills of lading usually quoted a single charge that did not differentiate between land and sea costs. In these cases, the allocation of revenues among transporters could be defined in verbal agreements. Rates would usually be somewhat lower in voyages connecting major ports served by large mercantile fleets and many railroads. At such nexus points, competition was most severe.

The costs of ocean shipping from Europe were also kept low partly by government subsidies. Compensation for carrying mail, for example, improved the finances of the Cunard Line that maintained regularly scheduled service between England and the ports of Boston and New York. Other nations provided subsidies that helped to defray the cost of new ship construction. In addition some European countries, most notably Germany and France, assisted their domestic industries by providing lower rail rates on manufactures shipped from interior locations to major ports.

Sea rates could also be depressed depending on the type of cargo. Ships would frequently transport for free or very low rates heavy cargo that could provide ballast necessary for safe sailing. Such arrangements would apply to products of high density such as crockery, cement, sand, plate glass and iron and steel. An example of this was the ability of German cement makers to compete successfully in Chicago against domestic product shipped from Vulcanite (now Alpha) in western New Jersey.

Federal intervention came as regulators focused on the railroads' practice of hiding in through import bills of lading constructive deviations from posted prices of domestic rail service. In 1889, the ICC issued Circular 658 that required the application of domestic rates for interior transport of imported goods arguing that such conformity was basic to the legal administration of the Act to

Regulate commerce. There was also an implicit informational component in the ICC's action. Transparency of price information was essential for the rational formulation of railroad oversight policy. In 1891, the ICC supported a complaint about rate discrimination and failure to conform with the requirements of Circular 658 in favor of imported goods brought by the New York Board of Trade & Transportation, the Philadelphia Commerce Exchange and the San Francisco Chamber of Commerce brought against several major railroads. However, as noted previously, the Supreme Court eventually ruled in the Import Rate Case in 1896 that the ICC's had interpreted the ARC in a way that wrongly restricted rather expanded the scope of trade. Under this ruling, the railroads were able to quote lower import rates if it was necessary to meet market competition or to compete with cheaper water-borne transportation competition.<sup>xlv</sup>

The subsidization of interior regions embedded in import rates was clearly identified by the U.S. Industrial Commission during its study of the railroads in 1901-1902. This initiative sought to determine how rates were determined and the overall consequences for decision making. One of the conclusions of this inquiry was that the import rates for transporting goods to the interior frequently was substantially lower than domestic rates at seaboard location. Although not noted in the Commission's report, the rate structure was consistent with the ICC's general welfare goals with respect to the economic development of interior regions.<sup>xlvi</sup>

The following year the U.S. Senate followed up on these findings. It instructed the ICC to prepare a study that compared import and domestic freight rates.<sup>xlvii</sup> The report entitled *In the Matter of Rates Upon Import and Domestic Rates* revealed the existence of significant difference between domestic and import rates. The ICC also contrasted the import rate savings against the assessable customs charges for each freight item. In 1904-1905, the Senate Committee on Interstate Commerce delved further into this matter by holding hearings about railroad import rate practices. The railroads testified that a relatively small portion of their overall cartage qualified for import rates. The Pennsylvania Railroad, for example, indicated that it had special rates on 69 products which accounted for an estimated 13 percentage of its total tonnage shipped. The New

York Central, on the other hand, had 88 special rates that it estimated accounted for about 3 percent of its total tonnage shipped.<sup>xlviii</sup> The ICC's tolerance of import-rate disparities was reflected in the findings in the Pittsburgh Plate Glass Case in 1905.<sup>xlix</sup> The glass company argued that the lower import rates that foreign suppliers paid as compared to the higher domestic rates the Pittsburgh firm was compelled to pay was clear evidence of an unreasonable rate discrimination prohibited by the Account to Regulate Commerce. The export rate per hundredweight of plate glass from Antwerp to via Boston to Chicago, a distance of 4000 miles was 40 centers. The rate for such a shipment through New Orleans to Chicago, a distance of 52,000 miles, was 32 cents. The domestic rate from Boston to Chicago, a distance of 999 miles, was 50 cents while the domestic rate from New Orleans, a distance of 922 miles, was 75 cents. However, the ICC did not support the glass company's claim for relief but instead, following the precedent of the Import Rate Case, found the lower import rates acceptable because they responded to market competition and highly competitive rates for trans-ocean shipping.<sup>1</sup>

The outcome of these deliberations probably had an indirect impact of the Hepburn Act, a high point in strengthening the ICC's power which enacted in June 1906. This law is generally remembered for its extension of the ICC rate setting authority. However, the revelations in the various hearings particularly of the U.S. Industrial Commission doubtless alerted the ICC to the many subterfuges that transportation enterprises could utilize in frustrating the federal agency's rate monitoring activities. One aspect of this was the bolstering of rules over corporate accounting to improve the quality and comparability of data relied on to guide enforcement and to inform policy planning. Hepburn also increased the scope of federal oversight over ancillary business activities such as express service and equipment leasing where hitherto opaque, private contracts could be manipulated in order to hide illegal rebates.

During the closing days of the Progressive era, the prevailing structure of rates conformed to patterns favored by the ICC as a means for strengthening and building up the economies of interior Western and Southern regions. Concerns

about the seeming inconsistencies in rates and their impact on customs motivate Congress to approve the formation of the Tariff Commission in 1916. Its ability to shape national policy had to wait until the end of World War I. During the interim, the U.S. Shipping Board played the central role in marshalling national maritime capabilities in support of the defense effort. In the meantime, the ICC focused its attention with respect to foreign trade on addressing the disputes over the rate differentials that affected eastern seaboard ports as well as the disagreements over rate levels that the Gulf ports aggressively advanced to assure their viability in the competitive market of international sea-rail transport.

### Conclusion

By the close of the Progressive Era, the relationship between seaborne and rail transportation had been resolved by the ICC in a manner that was supportive of its basic welfare objective of building up the economies of the interior West and South. The mechanism for this reallocation of income was the product of special import and export rates that had been advanced by the railroads to distribute freight through rival ports, to satisfy competitive conditions in foreign markets and to factor the effects of low cost oceanic transport. While all regional rail systems used such special rates to varying degrees, it was a practice most aggressively pursued in the Gulf ports. These communities needed special contractual inducements to overcome their relative disadvantage accruing from their great distance from the primary overseas markets of Europe and Asia. The system of regional cross subsidization through rate manipulation eventually was interrupted by U.S. entry into World War I. New federal agencies emerged to govern customs and the national railroads. New thinking about these matters would emerge during the post war era that goes beyond the bounds of this study.

The study also reveals how the potentialities of the sea and the commerce it supports may have major impacts on the regulation on land activities situated in contiguous territories. The ICC model for promoting interior economic development was both facilitated and made more complex by the existence of

sea communications. The sea provided the channel for connection the producers of interior regions with large overseas markets. This created complexity by compelling the federal agency to develop a rationale for favoring the transport of sea borne freight. However, in many cases these matters had a differential impact on the groups that were affected by rail regulation. In these cases the ICC decisions seemed to favor outcomes that promoted its underlying welfare objective of this period that involved the advancement of the economic development of interior locations in the south and the West.

The experience of the ICC with respect to the challenges of ordering sea-rail transportation also suggests the need to qualify some early findings about the significance of rail regulation. The findings in many cases dealing with sea-rail tariffs were essentially supportive of the position of the railroads. This does not seem to have been a function of administrative capture but rather of the agency's overriding desire to promote regional welfare. The ICC's opposition to rate increases particularly after 1910 could be better understand in terms of the welfare objectives that the ICC was trying to pursue in the West and the South. Also embedded in these transportation rules was an image of the type of society that some in government desired to help create which historians have not yet completely explored.

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- <sup>ii</sup> Gerald Berk, *Alternative Tracks: The Constitution of the American Industrial Order, 1865-1917*. Baltimore: Johns Hopkins University Press, 1994).
- <sup>iii</sup> Albro Martin, *Enterprise Denied: Origins of the Decline of American Railroads, 1897-1917*. (New York: Columbia University Press, 1971).
- <sup>iv</sup> Thomas J. McCraw, *Prophets of Regulation: Charles Francis Adams, Louis D. Brandeis, James M. Landis, Alfred E. Kahn*. (Cambridge, Mass.: Belknap Press, 1984).
- <sup>v</sup> Gabriel Kolko, *Railroads and Regulation, 1877-1916*. (Princeton, NJ: Princeton University Press, 1965).
- <sup>vi</sup> Richard, *Railroaded: The Transcontinentals and the Making of Modern America*. New York: Norton
- <sup>vii</sup> Alfred J. Churella, *The Pennsylvania Railroad*. Volume 1. Philadelphia: University of Pennsylvania Press, 2013.
- <sup>viii</sup> J.M Clark, "Standards of Reasonableness in Local Freight Discrimination." *Studies in History Economics and Public Law*. Vol. 37 (1).
- <sup>ix</sup> Interstate Commerce Commission, *First Annual Report of the Interstate Commerce Commission 1887*. Washington, DC: Government Printing Office, 1887., p. 36.
- <sup>x</sup> Interstate Commerce Commission, *Interstate Commerce Reports*, Vol. IX, Rochester, N,Y,: Lawyers Co-operative Publishing Company, 1904, p. 660.
- <sup>xi</sup> U.S. Tariff Commission, *Preferential Transportation Rates and the Relation to Import and Export Freight Traffic*. Washington, DC: Government Printing Office, 1922.
- <sup>xii</sup> J.L. Larson, *Internal Improvements: National Public Works and the Promise of Popular Government in the US*. Chapel Hill: University of North Carolina Press, , 2001.
- <sup>xiii</sup> Q. Skrabec, Jr. *William McKinley: Apostle of Protectionism*. New York: Algora Publishing, 2008, pp.24-28.
- <sup>xiv</sup> J.L. Larson, "Bind the Nation Together":The National Union and the Struggle for a System on Internal Improvements." *Journal of American History*, vol. 74 (2): 363-387.
- <sup>xv</sup> P.K. Paskoff, *Troubled Waters: Steamboat Disasters, Riverboat Improvement and American Public Policy, 1921-1860*. Baton Rouge: University of Louisiana Press. 2007.
- <sup>xvi</sup> H.C. Carey, *Principles of Social Science in 3 Volumes*. Philadelphia: J.B. Lippincott& Co., 1867, Vol. 3, p. 55.
- <sup>xvii</sup> *Ibid.*, p. 55.
- <sup>xviii</sup> *Ibid.*, p. 65.
- <sup>xix</sup> Skrabec, *William McKinley*, pp. 162-165.
- <sup>xx</sup> Carey, *Principles of Social Science*, Vol.3, p. 96.
- <sup>xxi</sup> Mary O. Furner, *Advocacy and Objectivity*, Lexington: University of Kentucky Press, , pp. 127-142.
- <sup>xxii</sup> Zimmermann, *Foreign Trade and Shipping*, p. 221.
- <sup>xxiii</sup> *Ibid.*, p.280; Emory R. Johnson and Grover G. Huebner, *Principles of Ocean Transportation*, (New York: D. Appleton and Company, 1918) pp. 213-234.
- <sup>xxiv</sup> U.S. House of Representatives, 63<sup>rd</sup> Congress. *Proceedings of the Committee with Merchant Marine and Fisheries in the Investigation of Shipping Combinations under House Resolution 587. Vol. 4: Report on Steamship Agreements and Affiliations in the American Foreign and Domestic Trade* (Washington, DC: Government Printing Office: 1914), pp. 71-75.
- <sup>xxv</sup> *Ibid.*, pp. 239-243; and 287-292. Because of the high level of competition between the many railroads serving New York it was considered an open city which did not require reliance on preferential contracting to assure economical and efficient service.
- <sup>xxvi</sup> *Ibid.*, 239-242.
- <sup>xxvii</sup> Emory R. Johnson and G.G. Huebner, *Principles of Ocean Transportation*. (New York: D. Appleton and company 1918), pp. 303-313.
- <sup>xxviii</sup> Commissioner of Corporations, *Transportation by Water in the United States: Part IV. Control of Water Carriers and Shipping Consolidations*. Washington, DC: Government Printing Office, 1912), pp. xi-xii and 17-24.
- <sup>xxix</sup> *Ibid.*, pp. 286-302 and 302-313.
- <sup>xxx</sup> Johnson and Huebner, *Principles of Ocean Transportation*. pp. 303-313.
- <sup>xxxi</sup> J, Russell Smith, *The Ocean Carriers: A History and Analysis of the Service and Discussion of the Rates of Ocean Transportation* (New York: G.P. Putnam's Sons: 1908), p. 275.

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- <sup>xxxii</sup> Hough, *Ocean Traffic and Trade*, pp 13-16; and House, *Report on Steamship Agreements*, pp. 299-300 and 309-311.
- <sup>xxxiii</sup> J.R. Johnson, T.W. Van Metre, G.G. Huebner and D.S. Hanchett, *History of Domestic and Foreign Commerce of the United States*. Vol. 2 (Washington, DC: Carnegie Institution of Washington, 1915), pp. 66-77 and 87-90.
- <sup>xxxiv</sup> U.S. Tariff Commission, *Preferential Rates*,
- <sup>xxxv</sup> *Ibid.*, pp. 296-297; and Emory R. Johnson and Grover G. Huebner, *Railroad Traffic and Rates*. New York: D. Appleton, Vol. 1, pp. 517-522.
- <sup>xxxvi</sup> Larson, *Internal Improvements*, pp. 70-72; and Larson, "Bind the Nation Together."
- <sup>xxxvii</sup> *Texas and Pacific Railway Co. v. Interstate Commerce Commission*, 162 U.S. 19; 40 L. Ed., 940).
- <sup>xxxviii</sup> *In the Matter of Export Rates from Points East and West of the Mississippi River*. 8 ICC 13.
- <sup>xxxix</sup> *In the Matter of the Relative Rates Upon Export and Domestic Traffic in Grain and Grain Products and the Publication of Tariffs Relating to Such Traffic*. 8 ICC 214.
- <sup>xl</sup> *Ibid.*
- <sup>xli</sup> William Z. Ripley, *Railroads: Rates and Regulation*. (New York: Longmans Green and Company), 1912), pp. 499-521.
- <sup>xlii</sup> Johnson et al. *History of Domestic and Foreign Commerce of the United States*, Vol. 2, pp. 77-78 and 92-96.
- <sup>xliiii</sup> U.S. Commissioner of Corporations, *Transportation by Water in the United States, Part III: Water Terminals*. (Washington, DC: Government Printing Office, 1910), pp. 3-7 and 70-101.
- <sup>xliv</sup> U.S. Tariff Commission, *Preferential Rates*, p. 304.
- <sup>xlv</sup> *Texas and Pacific Railway Co. v. Interstate Commerce Commission*. 162 U.S. 19; 40 L. Ed. 940.
- <sup>xlvi</sup> U.S. Tariff Commission, *Preferential Rates*, p. 306.
- <sup>xlvii</sup> *Ibid.*, p. 306
- <sup>xlviii</sup> *In the Matter of Rates Upon Import and Domestic Traffic*. (9 ICC 650).
- <sup>xlix</sup> *Pittsburgh Plate Glass Co. v. Pittsburg, Lexington, Chicago and St. Louis Railway*. 13 ICC 87.
- <sup>l</sup> *Ibid.*