

INTERMODAL TRANSPORTATION IN HISTORICAL PERSPECTIVE

By

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INTRODUCTION – MODALISM AND INTERMODALISM

Intermodal transportation as the term is used today first gained currency in the 1960s when the use of trailer-sized containers began transforming the way freight is packed and loaded on trucks and ships.¹ Cargoes had of course been transferred between different modes of transportation long before the introduction of modern containers. A number of arrangements for carrying truck trailers piggy-back on flatcars and for moving loaded boxcars overseas on ships had been established, but for the most part the task of shifting cargoes between modes still required that the boxes, barrels and bags in which goods were packed be unloaded from one carrier and then reloaded on the train, ship or truck that would carry them on the next leg of their journey. This slow, laborious process had

percentage of other cargoes carried in containers was steadily increasing as well. The circulation of millions of containers worldwide focused attention on two problems: 1) determining which m

designated port, where it would be offloaded to the dock or a warehouse to await pick-up, all according to rates and specifications detailed on a separate manifest.

Containerization has profoundly changed this incremental conception of transportation. Through shipment from origin to destination is now emphasized, not the movement of goods by a series of independent modal carriers. The use of common containers is transforming the different modes into a seamless network that moves freight from its origin to its destination with unprecedented speed and efficiency. Shippers now think of transportation as a service that, like all other components of a company's supply chain, needs to be integrated into the firm's overall operations. Carriers no longer think of themselves as operating in a single mode. Service is king in the transformed world of freight transportation and the term intermodalism, which originally directed attention to modal operations and modal interfaces, needs to be replaced by a more global term that emphasizes continuity and through service. Of course a mere change of names will not solve the daunting technical and managerial problems encountered in providing reliable, swift, efficient transportation by a network of carriers, but a more comprehensive term – the leading candidate appears to be logistics – would more accurately describe the nature of the system that is currently being constructed.

If in the future intermodalism is replaced as the organizing concept for freight transportation by some term that does a better job of capturing the contemporary emphasis on continuity and service, modalism will nonetheless continue to play an important role in the history of transportation. Transportation's heritage, as enshrined in history books and journals, in museum collections and exhibits, and in associations of dedicated amateurs, is thoroughly modal. Maritime historians seldom have much to say to

railroad historians, and those who know a great deal about pioneering highway programs and early automobiles and motor trucks rarely have more than a passing knowledge of commercial aviation. Such monomodal identification is not surprising nor should it be condemned, for historians characteristically back into the future with their eyes fixed firmly on the past. But recognizing that the history of transportation remains adamantly modal while the contemporary industry is struggling to reorganize itself into a comprehensive system helps explain why no serious attempt has yet been made to reinterpret the history of surface freight transportation in a way that moves beyond the vocabulary of modalism. A few well-documented books and articles on containerization and intermodalism have been published, but they are primarily valuable as accounts of the attempts to stretch one mode, in most cases rail transport, to encompass another, usually road transport.

intermodalism may have done all the work it can in today's transportation industry. I suggest that like other once useful organizing ideas in transportation history, ideas such as mercantilism and grants of public lands, the concept of intermodalism be honorably retired. The freight transportation industry can then shed its outdated fixation on modes and move more confidently into the beckoning post-modal future.

The different modes employed in moving freight are human inventions, rather than systems whose defining characteristics are given by nature or their technologies, and

will continue to be aware that a profound cultural and institutional shift has taken place. Today a history of the world that focuses entirely on the rise and fall of nation-states would rightly be considered inadequate. So would a history of transportation that speaks only of modes and their interactions.

FREIGHT TRANSPORTATION BEFORE THE AGE OF MODALISM

Modern freight transportation uses machines, natural resources and human skills to move cargoes over considerable distances. Because each of the different modes employs a different mix of technologies, each has its own characteristics and capabilities. In certain circumstances two or more modes may compete head-to-head for cargoes awaiting shipment, but in most cases there is, for technical and economic reasons, little direct

devices, such as rowed galleys and wheeled wagons, used inanimate means to support the vehicle's weight as it was propelled forward by muscle power, but the tempestuousness of the seas and the roughness of roads built before the twentieth century severely limited their utilization. Two of the industrial revolution's great achievements were the manufacture of compact and increasingly efficient steam engines and the production of large quantities of relatively low-cost iron, and both technologies contributed to profound advances in freight transportation. In the twentieth century further technological advances added to the ways available to move freight, so that today one can choose among waterways, railways, highways, and airways, as well as such less flexible but nonetheless important modes as pipeways and beltways.

Waterways have been used to move freight since time immemorial. Peoples who lived along rivers learned to build rafts and canoes, load them with trade goods, and float them downstream. The water supported the weight of the cargo, so long as the vessel stayed afloat, while offering little resistance to motion along its surface. In time humans learned to make larger and stronger boats and use sails to capture the force of the wind. Wherever water passage was possible on rivers, along coasts, in enclosed bays and seas, and ultimately across oceans, the evolving technologies of shipbuilding and sailhandling made it possible to carry men and goods to lands both near and far. Later on waterways were extended inland by constructing canals. A variety of industries arose to exploit the possibilities made available by different types of waterways, but they were all part of a single mode in the sense that they all used water as their 'way'.

In an abstract sense coastal navigation competed with overland transportation, but as Adam Smith emphasized in The Wealth of Nations, so long as overland transport

depended on highways and draft animals, there really was no competition. Writing in the 1770s Smith examined the cost of moving freight between London and Edinburgh, a city served by the port of Leith.

A broad-wheeled wagon, attended by two men, and drawn by eight horses, in about six weeks time carries and brings back between London and Edinburgh near four ton weight of goods. In about the same time a ship navigated by six or eight men, and sailing between the ports of London and Leith, frequently carries and brings back two hundred ton weight of goods.

After working out the relative costs involved, Smith concludes:

Were there no other communication between those two places, therefore, but by land-carriage, as no goods could be transported from the one to the other, except such whose price was very considerable in proportion to their weight, they could carry on but a small part of that commerce which at present subsists between them, and consequently could give but a small part of that encouragement which they at present mutually afford to each other's industry.³

Smith then extends his argument to regions in which overland carriage is not possible, his point being that in the absence of reasonably priced transportation, or of any form of transportation at all, there is no trade. This was the vision that informed the age of European maritime empires from the mid-fifteenth century until the end of the Second World War. At that stage in the history of transportation, the growth of trade was promoted and shaped far more by the possibilities opened up by new modes of transportation than by marginal advantages among competing modes.

The railroad was the new way to go in the nineteenth century. The 'way' involved was manmade, the key technology was the flanged iron wheel rolling on an iron rail. Metal rails support the weight of vehicles and cargo while imposing far less resistance to horizontal motion than the rough highway surfaces of the time. In North America two types of railroads were built. The earliest connected existing cities and towns and carried passengers and freight in both directions. These roads were often built parallel to existing canal routes and turnpikes and in most cases offered faster, cheaper and more reliable service than the canals or roads could provide. Here, as along the coasts, real modal competition emerged, and in all but a few cases the railroads prevailed. But railroads were also built, usually with government land-grant support, from cities and towns 'at the end of the line' out onto the open prairies and plains and up into the mountains. The companies that built these roads were betting on the future and trusting that commerce would flourish once the continent's mountain ranges had been breached and its interior had been settled and made productive. In one sense then, the pioneering age of railroading was the continental equivalent of the classic age of European maritime

operating costs of water transport remained low. Furthermore, ships could go wherever their capabilities and economic opportunities took them; ocean-going ships could look for cargoes and markets wherever they could sail, so long as pirates and politicians did not pillage or exclude them. The low cost of entry in the maritime trades and the fl

The fact that the railroads, unlike the maritime carriers, built and owned their 'ways' was enormously important. Once the first wave of railway building had been completed, comprehensive railroad companies were created largely by buying and integrating smaller companies that owned key segments of track on developed routes. In the maritime trades, at least before the age of iron ships, those who wished to enter the business could simply build new vessels at relatively low cost and bid for cargoes wherever they were allowed to trade. The railroads had huge sunk costs, and opening a new route or abandoning an old one involved significant commitments or losses. While the railroads wielded great power over the towns and regions they served and could claim a large percentage of the commercial wealth generated within them, their geographical fixedness made them easy political targets, especially when they were popularly viewed as being rapacious monopolies. The railroads' size and power exposed them to far greater public scrutiny and political interference than the waterway's industries had to face. As a result, it was the railroad companies rather than the maritime industries that forced Americans to come to grips with the consequences of relying on private corporations to build and operate the burgeoning national economy's transportation infrastructure.

But it would be a mistake to suppose that the great railroad builders thought of themselves as restricted to one mode only. Although widely known for their successes as captains of the railroad industry, m

In 1833, when only 27 years old, Brunel was appointed engineer to the recently formed Great Western Railway Company. Railroad building was then in its infancy and the British had not yet agreed upon a standard track gauge. Brunel decided to build 'broad gauge' on the fairly level run from London to the western port of Bristol and he

Pittsburgh, located at the head of the Ohio-Mississippi River system.⁷ Much of the railroad's capital came from Philadelphia merchants who had succeeded in maritime ventures, and it was realized that the best way to increase the railroad's traffic flow was to improve Philadelphia's standing as a seaport. This was first done by expanding the trade in anthracite coal brought down from the hills to the west of Philadelphia. In 1850 the Pennsylvania Railroad's west-bound traffic received a boost when Great Britain's Inman Steamship Company began bringing immigrants from Liverpool to Philadelphia. By that time J. Edgar Thompson had become the railroad's president and was vigorously consolidating his control while expanding his vision. By 1870 the railroad had grown from the 400 miles of track connecting Philadelphia to Pittsburgh into a 6000-mile network linking the northeast to the midwest. As Thompson looked east he saw the ocean

Delaware Valley, the center of iron shipbuilding in the United States at that time,
submitted bids. The contract was awarded to Cram

ability to produce wheat, cotton, and steel and the nations that needed them. Like Brunel, his wanted to operate the biggest ships possible to keep his transportation costs to a minimum. In 1900 he proposed to build four ships for the Great Northern Steamship Company, his new liner company, and signed contracts for the only two that were actually built; both were to be half-again as large as the biggest merchant ship ever built in the United States and larger than any ship in the world operating at that time. They were constructed in Groton, Connecticut, on the site now occupied by the submarine builder Electric Boat Company. Wi

opening new markets abounded; modal thinking was a constraint that had to be imposed, learned and enforced. If for venturesome entrepreneurs there is a 'natural' approach to freight transportation, it is comprehensively systematic rather than modal. There must therefore be particular historical reasons that the transportation industry came to be thought of in modal terms. Modal thinking is not a simple reflection of the existence of several modes, it is a consequence of specific legal limitations and operational practices that were adopted as the American political system responded to the challenges posed by the new forms of transportation made possible by the advance of industry. The rise of modalism is not a simple story, but it is an important and instructive one.

FEDERAL INTERVENTION AND THE CONSTRUCTION OF MODALISM:

REGULATION, MOBILIZATION, DEPRESSION.

Although the story of federal transportation regulation from the 1880s through the 1930s is exceedingly comp

intervention and supervision that radically altered the way the regulated industries ran their businesses.

The government responded especially strongly to public dismay over the growth of combinations and trusts. Businessmen promoted such combinations as a way of controlling excess capacity and coordinating supply and demand in the emerging national economy; consumers and small businessmen, however, saw such combinations as monopolies and restraints on trade, conspiracies against the common good. Except in times of national emergency, federal officials seldom argued for public ownership and operation of industry, which industrialists were of course determined to avoid, but gradually regulatory strategies were developed for managing what came to be called 'natural monopolies' as public utilities. Although close regulation of such businesses was widely favored, no one foresaw that the forms of regulation adopted would so constrain the industries involved that their innovative and dynamic features, which everyone expected would continue to generate wealth and increased efficiency, would in fact be effectively destroyed. As the federal government responded to the new world of industry, Americans began to learn through experience the limitations of Progressive social theory and the costs of attempts to link closely political interests and economic activity.

The story of regulation and antitrust enforcement rings with righteous antagonism, misunderstanding, mistrust, unintended consequences, and striking ironies, and although passions ran high for generations, the time for searching for villains has long passed. The government's efforts to control the impact of industry led to bureaucratization and a loss of entrepreneurial vigor, yet its concerns also reflected real public pain and anxiety, and the regulatory machinery it created appeared reasonable at

the time. The government was responding to particular problems associated with the growth of industry, it was not attempting to create a comprehensive plan for national economic development. Laws were passed and administrative machinery was created to deal with concrete problems and it took years for all the consequences of these actions to become apparent. Inevitably government regulation slowed the growth and modernization of the regulated industries. In the freight transportation industry, for instance, the government identified problems and proposed remedies on a mode-by-mode basis, a strategy that soon saddled the regulators with the task of rationalizing and sustaining each mode separately. The move from seeing a variety of modes as merely a

The task of controlling the way businesses priced their goods and services and managed their day-to-day affairs was a more challenging matter. The problem generally did not arise when freight was being moved on waterways, for if American ships were allowed to call at a port, new entrants could always provide additional service when rising rates justified doing so. After the First World War this was also true f

of the many federal commissions that were to follow. The Act granted the ICC quite restricted powers, but as shipper complaints increased and the Progressives became more assured of their ability to regulate business, Congress strengthened the ICC's hand. A series of laws passed in the years before the First World War gave the ICC authority to set new rates after voiding unfair rates, to initiate proceedings on its own and set aside rates temporarily while investigating their fairness, and to establish the physical value of railroad property as a base for calculating a fair level of earnings.¹⁰

The government, through the ICC, had established a firm grip on the railroad industry's ability to generate revenue and it showed no inclination to let go. Appeals to the Commission for rate increases were repeatedly denied on the ground that the railroads could get by with the existing rates if they simply cut costs and trimmed their dividends. There may have been some truth in this, but the industry's requests for rate hikes were not entirely motivated by greed and sloth. A long period of declining prices had ended at the turn of the century and fifteen years of inflation put the railroads in a serious financial squeeze. The railroads, so recently haughty and powerful, were, as industrial enterprises, being forced into decline, a fact that the government only admitted when it seized and

contract, combination in the form

dominance of the coast-to-coast freight business. Should the government stay out of this competition between modes and let it be settled in the marketplace? Not likely, for Washington, having invested so much money and hope in this project, felt compelled to defend the canal's commercial prospects. It therefore passed the 1912 Panama Canal Act, which amended the Interstate Commerce Act by specifically prohibiting railroad companies from having any interest in water carriers operating through the Panama Canal, especially if they transported cargoes the railroads might otherwise have carried.¹³ Evidently Congress had come to see the ICC, which was initially established to determine and enforce fair railroad rates, as the tablet on which it could inscribe whatever policies it felt were necessary for the domestic freight transportation industry. It was a way of using this commission that Congress would employ again in the 1930s as it struggled with the consequences of the depression.

When President Wilson decided the United States needed its own merchant marine to carry its overseas trade, the issue of combination in restraint of trade had to be addressed. Iron-hulled steam-powered ocean-going ships are, like railroads, expensive industrial artifacts that have to be continually earning revenue to cover their costs and provide a return on investment, yet as in other areas of transportation at the end of the nineteenth century, excess capacity and unrestricted competition among steamship lines repeatedly drove cargo rates down to levels that threatened to bankrupt the weaker firms. Liner companies responded to this threat by forming conferences that set freight rates on specific trade lanes, allocated cargo among members, and sometimes pooled and shared profits. These international cartels also defended their control of trade routes by deploying 'fighting ships' that carried cargoes at a loss when necessary to prevent other

operators from forcing their way into the trade. All foreign governments allowed such conferences to exclude non-members, but such an arrangement would clearly violate U.S. antitrust law. U.S. ocean carriers soon discovered that antitrust regulation was not a matter of domestic concern alone.

In 1916 Congress passed three ‘preparedness’ bills submitted by the Wilson administration. Having had no success in getting the warring nations in Europe to heed his pleas for peace negotiations, Wilson concluded the Great Powers of Europe would only listen to the United States if it too became a Great Power. He still hoped to avoid being drawn into the war in Europe, but he realized that a lack of preparedness was being interpreted as a sign of weakness and an absence of resolve. Wilson therefore asked Congress to pass a Navy Act, an Army Act, and a Shipping Act. The first two expanded the armed services, the third authorized the building of a world-class merchant marine. Prior to this the United States had relied on foreign shipping lines to carry almost all of its overseas trade. When Europe went to war in 1914, the U.S. found itself without carrying services while its export cargoes rotted on its docks. The 1916 Shipping Act therefore authorized the building of a fleet of merchant ships at government expense, to be privately operated when possible, that would provide adequate carrying service for the nation’s foreign commerce and for its armed services in times of peace and war.

The Shipping Act created a five man Shipping Board that was given broad powers to deal with antitrust issues.¹⁴ Companies operating U.S.-flag ships could join conferences, but only if the conference agreed not to use fighting ships or provide deferred rebates. The law also required that any conference that included U.S.-flag ships must be open to any steamship company that wished to join and that trade with U.S. ports

be open to all carriers, whether members of the conference or not. All U.S. liner companies were also required to file their rate schedules with the Shipping Board. The restrictions attached to the antitrust exem

As demobilization proceeded following the First World War, the government tacitly acknowledged that it had an obligation to set policy for the industries it regulated, yet it was ill-equipped to do so. The Transportation Act of 1920, the Esch-Cummins Act, provided for the return of the railroads to private operation, but it also greatly strengthening the powers of the ICC.¹⁵ The Commission could now set minimum as well as maximum rates and was instructed to see that the railroads obtained a fair rate of return. The Commission was also to supervise the issuing of railway securities and proposals for consolidation. The governm

conferences that did not abide by its rules. As with the railroads, the government forthrightly stated its intentions for merchant shipping in 1920, but it did so within an entirely modal conception of freight transportation. Formulating a comprehensive and truly national transportation policy was not yet part of the federal agenda.

During the 1920s the number of cars, trucks and hard-surfaced roads and highways increased rapidly. This hurt the railroads as they lost passengers to cars and buses and as trucks captured an increasing percentage of the lucrative small-lot freight business. Trucks, like ships, did not have to build their 'way'; they were free to go wherever there were adequate roads and to adjust their routes to suit their customers. Trucks offered better service and quicker delivery than the railways could provide. The motor truck industry consisted of thousands of small-scale enterprises, many of them single truck operations, and it was not burdened with the regulatory constraints, deferred maintenance, or enormous sunk costs that weighed down the railroads. The railroads tried to hold on to their customers by starting their own trucking companies and by carrying truck trailers on flatcars, but they soon ran afoul of requirements that they operate in only one mode, and in most cases they simply could not match the service provided by the truckers. Just as the coastal and inland waterways had earlier lost much of their passenger and freight trade to the railroads, so too did the railways lose passengers and general freight to cars, buses and trucks. This would not have been fatal had the core sectors of the railroad business been in good shape when the motor truck industry began to grow. It was not modal competition that put the railroads in peril in the 1930s, it was the constraints imposed by rate regulation and the absence of vigorous management that kept

them economically weak. Regulated and slow to respond, the railroads were ill-prepared for the rigors of the depression.

The prolonged collapse of industry during the Great Depression changed everything. Whereas the ICC had been created to serve the cause of justice by restraining the railroads' use of monopoly power, the government's task in the 1930s was to revive industry and the economy it served. The transportation industries were no longer wild horses that had to be brought under control, they were ailing beasts of burden that needed to be nursed back to health. Protection and subsidy of key industry sectors was called for, not close supervision of powerful monopolies and cartels.

New Deal legislation brought the government's modal organization of the transportation industry to a culmination, but it did so in a way that radically undermined the public interest assumptions that had informed this program at its outset. Regulation was originally imposed to protect the public interest against the economic power of 'natural monopolies' such as railroads that provided towns with their only freight service. But nearly fifty years of regulatory experience and technological change had transformed the original regulatory apparatus into a powerful opponent of modal competition. Federal transportation policy made no effort to plan and implement a coordinated, rational, efficient national transportation program, nor, alternatively, did it favor deregulation and letting the marketplace determine the allocation of transportation investments and services. It was instead committed to protecting from modal competition the various modes of transportation that had developed up to the time of the depression. This was a reasonable goal at the time, for the most pressing need then was to get industry working again and the men back on the payroll. But when the depression was over the walls that

isolated the different modes from each other remained. Modal autonomy had become institutionalized by law, bureaucratic regulation, and federal protection and subsidy; it had also become deeply ingrained in the corporate culture of the modal industries. This is the entrenched legacy of modalism that the transportation industry is still struggling to overcome.

The dire condition of the railroads was first addressed in the June 1933 Emergency Railroad Transportation Act. In addition to altering some of the ICC's powers, the Act created the temporary position of Coordinator of Transportation. This individual was to be appointed by the President, would work with the ICC, was subject to the scrutiny of federal courts, and was charged with rationalizing the nation's rail system. The veteran ICC Commissioner Joseph Eastman was appointed as the first Transportation Coordinator, but despite his skill and experience he was not able to make much progress on the impossible task he had been given. As one commentator has noted,

[Eastman] succeeded only in coordinating opposition to him and his office. He shrewdly analyzed those opposing cooperation as management, unable to break old habits of thought; railroad officials and laborers, afraid to lose their jobs; communities, apprehensive about service; supply companies, worried about collective railroad scientific research and purchases; and large shippers, anxious to play railroads against each other.¹⁷

In his annual reports Eastman argued against nationalization of the railroads and urged instead that trucking and inland-water carriers be brought under ICC regulation and that the ICC be reorganized. The 1935 Motor Carrier Act was the most significant achievement to flow from these proposals. It provided for extensive regulation of trucks

operating as common carriers, that is to say those that accepted cargo from all who offered it and carried it at published rates; truckers who carried cargo under private contracts were subject to lesser levels of regulation. The 1935 Act also gave the ICC the power to issue the certificates required to operate as common carriers and to set maximum and minimum rates and other standards for management and operations. Only minimum rates could be set for contract carriers. Determined to revive industries that had been knocked flat by the depression, Congress wanted the ICC to prevent a rate war between truckers and railroads. Truck rates were therefore tied to existing rail rates, a decision that pleased the railroads but cost them dearly as truckers began providing superior service for the same cost.

The Merchant Marine Act of 1936 provided that industry with a highly elaborated program of regulatory oversight and a program of construction and operating subsidies designed to make U.S.-built ships operating under U.S. registry competitive in international trade.¹⁸ It remains the organic act for U.S. maritime policy today, although its subsidy programs have been almost entirely eliminated.

The increase in the ICC's workload was such that by 1937 a committee recomme

transportation.”¹⁹ Congress’ goal was to bring stability to the airline industry, and so it did. The 1938 Act and CAB regulation effectively cartelized the airline industry in a form that remained essentially unchanged for the next forty years. Once again it became clear

the nature of the service, the large amounts of capital required, and the p p 12 0 0 12 306.8533 fservi

CONTAINERIZATION, DEREGULATION, INTERMODALISM

Federal regulation of freight transportation made modalism the organizational model for the industry as a whole and preserved that structure by minimizing competition both from other modes and from new entrants. The modes were separated in practice by the persistence of labor-intensive cargo handling at modal interfaces and in principle by regulatory constraints that prevented companies from operating in more than one mode. Of course several different modes still had to be used when moving cargoes long distances over land and water, but each segment of such voyages was managed by a different firm using machines and procedures specific to the mode being employed. Since no single firm was responsible for the entire move and the methods of cargo packing and handling were not designed to serve all phases of the system, shipments that required two or more modes can be said to have been multimodal rather than intermodal. Goods were moved, to be sure, but freight transportation was making little progress toward becoming a comprehensive integrated system. The costs and losses in freight transportation remained high; attempts to alter standard practices and increase efficiency were few.

The mold was broken by two developments. The first of these, introduced in the 1950s and by the 1970s widely accepted as the best way to pack and move general cargoes, was containerization. The second development, articulated by economists in the 1950s and written into the legislation that deregulated the transportation industries in the last three decades of the twentieth century, stressed the need to seek economic efficiency by comparing costs across modes. Containerization promoted intermodalism by placing cargoes in standard-sized boxes that could be moved by all three modes of surface

coast was moribund. He therefore decided to get hold of his own ships and carry his boxes in large lots from port to port. Since the ICC regulated coastal service and was disinclined to allow anyone new into the trade, McLean bought a steamship company that already had the necessary operating certificates. He fitted out an old tanker to carry containers on deck, expecting that he could also carry oil or oil products on the trip north from Texas, but the Coast Guard would not allow it. Like Brunel, Thompson and Hill, McLean thought of his steamship company as an extension of his overland firm, but the ICC told him he could only operate in one mode. McLean then proved himself a true entrepreneur, a man willing to bet everything on a new idea, by selling his trucking company and plunging into his new venture whole hog. He went on to make a huge success of the company he called Sea-Land Services, and in doing so he made the use of containers mandatory worldwide for general cargoes moving in liner service whether on water, rails or highways.

McLean did not set out to make intermodalism possible, he simply wanted to move his cargoes cheaper, faster and with less damage. He had made his way in the world of modalism and never expected the freight transportation industry would be radically deregulated. He conformed to all the rules and regulations that were in place, yet managed to effect a revolution by transforming the way longshore work was done, a sector of the industry that had never been considered a natural monopoly and hence was not closely regulated. It was fortuitous that McLean launched his new company in the coastal shipping trade, for that freed him from foreign competition, yet when he later began overseas service he was also successful, for by then he had a novel product he knew how to sell. McLean purposefully avoided seeking construction or operating

subsidies from

were in no hurry to see them change. It was finally functional collapse rather than academic critique that brought down the regulatory regimes, but it was important to the success of deregulation that the economists had developed a rationale for abandoning these regimes when they failed.

One of the earliest economic studies that put regulation in the cross-hairs was written in 1958.²¹ The authors begin with a claim that their subject has recently become a matter of some urgency:

The problems of the United States transportation industries have become in recent months a major concern of domestic policy. In a certain sense, the recent

begins with the straight-forward claim that “the objective of public regulation in the transportation field is generally accepted to be the satisfaction of the transportation requirements of the economy with a minimum use of economic resources.”²³ ‘Generally accepted?’ What happened to the tension so central to Progressive policy between public and private interests? Evidently these economists see a community of interest where Progressive politicians saw antagonism.

By 1970 economists had, as Thomas McCraw has put it, restored ‘the market’ to intellectual respectability within universities and were beginning to apply their analyses of how markets work to social arrangements that had previously escaped close economic scrutiny.²⁴ In that same year Alfred E. Kahn published the first volume of his study on The Economics of Regulation, a work that laid out the position he adhered to during his subsequent years as a leading figure in the deregulation of public utilities.²⁵ Appointed chairman of the Civil Aeronautics Board in 1977, Kahn learned first hand what he was up against. He already knew from his experience with the New York Public Service Commission that commissioners, under the tutelage of lawyers, emphasize procedural due process rather than economic efficiency. At the CAB he found the greatest resistance to deregulation came from the airline labor unions, who had used the cost-plus thinking and protectionist policies of the Commission to raise their members’ wages to exceptional levels.²⁶ Testifying before a House committee in 1977, Kahn listed examples of the kinds of ‘picayune decisions’ the CAB was routinely asked to make. He ended by saying, “Is it any wonder that I ask myself every day: is this action necessary? Is this what my mother raised me to do?” A year later he answered his own question with a sweeping indictment of the entire regulatory enterprise:

been charged further in the 1920s with building up a system “prepared to handle promptly all interstate traffic of the country,” the ICC planned nothing.²⁸

Could the ICC survive such categorical condemnation? Regulatory regimes are not without their defenders, whatever the charges laid against them, and even when bureaucracies perish, they do so slowly. For the ICC the end came in 1995 when the oldest of all the federal regulatory commissions was eliminated and the few of its tasks that did not disappear with it were passed on to its successor agency, the Surface Transportation Board, or parceled out to other offices.²⁹ By that time much of the legislation needed to deregulate the various transportation industries had already been passed and several of the regulatory bodies that had created and sustained modalism had been consigned to history. The creation of Intermodal firms and the construction of efficient and economic global transportation systems now became possible and is indeed proceeding apace. The range of federal regulatory intervention has been greatly reduced, the range of market-based decision making has been greatly expanded. In one sense the transportation industry is now operating with a freedom it has not enjoyed since the closing years of the nineteenth century; in another sense it is now working with technologies that are so novel they make comparisons with the past completely unhelpful. Yet however the future is described and whatever its relation to the past, freight transportation in the post-modal era promises to be full of surprises.

EPILOG – A ROLE FOR HISTORY

Late in December 1999, Mr. Floyd Norris, the chief financial correspondent of The New York Times, wrote an article listing the “12 biggest business blunders of the

past 100 years.”³⁰ He describes the first of these, titled ‘Railroads’ Narrow Track’, as follows:

For the first half of the [twentieth] century railroads were the undisputed masters of national transportation. But since they thought of themselves as railroads rather than transportation companies, they never tried to expand into either trucking or airlines at a time when their capital could have given them the edge. In mid-century, many of the rails went through bankruptcy reorganization, and it was decades before they began to make good money through intermodal service – the shipping of goods by a combination of rail and trucks.

Could anyone familiar with the history of American railroads say they were ‘the undisputed masters of national transportation’ in the first half of the twentieth century? Was intermodal service something that was just waiting to be put into effect? Mr. Norris’ ignorance of the history of transportation is breathtaking. What he has done, in the absence of any sense of what really happened, is project the present on the past by assuming that the railroads simply did not do what they could easily have done, that is initiate the kinds of intermodal service that has served them so well since deregulation. So much for history.

There is no need to hammer Mr. Norris for this stumble, but it does provide a useful reminder of how quickly past constraints, once removed, are forgotten and how easily reasons are concocted and blame is assigned once an informed sense of the past has been lost. An awareness of the complex historical relations between the government and the transportation industry needs to be kept alive and passed on precisely because it is a troubled and inescapable relationship. If we do not learn from the past, we will go into the future as blindly as Mr. Norris, unwittingly, would have us do.

NOTES

1. See David R. McKenzie, et al., Intermodal Transportation – The Whole Story (Omaha, Nebraska: Simmons-Boardman Books, 1989), p.7: “The container certainly deserves the credit for focusing attention on intermodalism.” The idea of using standard-sized cargo containers and attempts to coordinate road-rail shipments of less-than-carload-lots predate the introduction of the kind and size of containers that are so widely employed today.

2. See David DeBoer’s excellent Piggyback and Containers: A History of Rail Intermodalism on America’s Steel Highway (San Marino, California: Golden West Books, 1992); John H. White, Jr., “The Magic Box: Genesis of

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29. For a brief summary, see Muller, p.47.

³⁰ . New York Times, 20 Dec. 1999.