

Containerization's First "Tipping Point": The Fall of the New York Port, 1965-1975¹

Stephen G. Marshall, Esq.²

Saturday, October 6, 2001

Panel: The Port of New York: Past Greatness and Future Prospects."

Containerization and Seaport "Tipping Points"

I shall start by discussing the concept of a "tipping point" and its relationship to seaports in general. "Tipping Point" generally refers to the onset of a period of rapid and drastic change.³ In this instance, I am referring refer to very dramatic changes in the pattern of shipping activities and the very shape of the modern seaport. During the past three decades, almost all major seaports underwent a similar set of changes: shipping operations migrated—very rapidly—from piers and docks traditionally located near urban central business districts to new containerports located in outlying areas on the fringes of the cityports.⁴

In the case of the Port of New York, almost all its shipping operations migrated from the piers along Manhattan and Brooklyn, out to Port Newark-Elizabeth.⁵ This spatial and economic transformation happened within the span of only a few years, during the late 1960s and early 1970s.

I give this process the name "*Containerization's* First Tipping Point," because these particular changes in the Port of New York were due largely, but not entirely, to containerization. That is, to the technological innovation by which previously discrete types of cargo were not loaded and carried in uniform cargo

containers. This innovation drastically reduced cargo losses from damage and pilferage, facilitated their loading and unloading onto ships and other types of transport vehicles, and also facilitated multi-modal transportation routes.⁶

I speak of this as “Containerization’s *First* Tipping Point,” because this was the first time that this process had ever happened. When the shipping operations that had been based in Brooklyn and Manhattan moved out to Port Newark during the late 1960s and early 1970s it was then an unprecedented event. Nobody had ever seen such rapid waterfront abandonment, at least not during peacetime, when major seaports rapidly lose all of their shipping within a period of only a few years.

Now although this was the very first time that anything like this had ever happened, it would not be the last. During the 1970s, virtually all of the other major seaports, all around the world, experienced similar changes. The shipping at San Francisco migrated across the Bay to the Port of Oakland. London’s shipping also departed, at first down the Thames River to Tilbury, and then further out onto the coast at Felixstowe. Rotterdam’s shipping relocated down the Scheldt to Maesvlake and Europoort; Marseilles’ went across the Bay to Fos-sur-le-Mare. The shipping at Sydney, Australia’s major port, migrated a dozen miles south to the new containerport at Botany Bay.⁷

The rest of my talk will examine why this process of urban waterfront abandonment happened to occur for the first time at the Port of New York, and describe what was Port’s response.

The Initial Development of Containerization at Port Newark, 1955-1965

I can start by giving a very short answer as to why the process of urban waterfront abandonment first occurred at the Port of New York. It happened here mainly, but not entirely, because the initial development of containerization technology happened to occur at Port Newark.

The fact that Port Newark happened to be the birthplace of modern containerization also meant that the Port of New York would wind up being the world's first example of modern containerization-induced urban waterfront abandonment.

The development of container technology at Port Newark led to the rise of Port Newark, through a process analogous to the rise of the Port of New York a century and a half earlier, as brilliantly described by maritime historian Robert Albion in his classic work, *The Rise of New York Port, 1815-1860*.⁸

Albion explained the rise of New York Port as resulting from the adoption of technological and economic innovations (Erie Canal, scheduled packet ships, and the triangular cotton trade) which enhanced the location's natural geographic advantages (deep water berths in a sheltered harbor near a major commercial city). Albion posited these combined factors as the reason why New York Port triumphed over the competing ports of Boston, Philadelphia, Baltimore and Charleston in the 19th Century.

Albion's model can also be used to explain the internal intra-port migration of shipping operations to Port Newark since 1965. A similar combination of

productive investments in technological and economic innovations (dredging and landfill operations in the Newark and Elizabeth meadowlands, construction of adjacent railroad and highway routes, early installation of containerized cargo facilities) enhanced the natural resources of Newark and Elizabeth (their location on east side of Hudson River and Newark Bay, and the availability of thousands of acres of vacant land), and resulted in New Jersey attracting almost all of the port's shipping operations.

The actual process of developing containerization started at Port Newark in 1955, when trucking entrepreneur Malcom McLean persuaded the Port of New York Authority—which operated Port Newark—to allow him to begin experimenting with the new technology he was developing which integrated ocean shipping with landside transport of cargos in a very efficient manner. McLean and his shipping company (eventually re-named SeaLand) spent ten years working out the bugs from the new technology. SeaLand did this while operating within the shipping industry's "minor leagues," the relatively small market of coastal shipping, limited to seaports along the U.S. Atlantic, Gulf and Pacific coasts.⁹

Containerization's Global "Take-off" in 1965+

While McLean and SeaLand carried out their first decade of container operations, they were being closely watched by the shipping industry's major players: Moore-McCormack, Cunard, Grace, and other giant large shipping lines. These were the players who dominated the industry's "major league"—the lucrative

trans-Atlantic routes, carrying export-import cargoes between the Port of New York and London, Amsterdam, Rotterdam, Marseilles, and other European ports.¹⁰

When McLean made his tremendous investments in the new technology, he met a lot of skepticism and even ridicule. Almost everyone in the shipping industry expected him to fall flat on his face and go bankrupt. Although he had some close calls at times, he not only managed to survive, but to prosper with the new technology. By the 1960s, he (and containerization) had made SeaLand into the largest shipping line engaged in the U.S. coastal trade.

In 1965, after a decade of growth and technological innovation, McLean announced that SeaLand was going to expand even further. It was going to enter the “big league,” the trans-Atlantic shipping routes. This time the shipping industry’s reaction was not skepticism, but a combination of worry and outright panic. If SeaLand managed to be half as successful in these routes as it had been in the coastal trade, it would soon dominate the industry and drive every other shipping firm not using containers out of business.¹¹

When the shipping industry began hearing rumors in the mid-1960s that SeaLand was going to start competing for the trans-Atlantic routes, many of the major shipping lines at based at New York Port began scrambling to adopt the new technology. They began modifying their ships to accept containers, and also began studying how they would need to adapt their port operations for containers. Many of them soon arrived at the same conclusion: in order to implement viable containerport operations, they needed lots and lots of space. They needed much

more acreage than was available anywhere on the New York waterfront. Neither Manhattan, Brooklyn nor Staten Island had enough space to construct a viable containerport.

Many shipping lines based in New York City had already concluded that in order to implement successful container operations, they had to transfer their operations to Port Newark, which covered several thousand acres. In addition, it was located next to the New Jersey Turnpike, which meant (as the Port's advertisements boasted) that a truck could travel from Port Newark to Chicago, without having to stop for a single traffic light! This was a crucial factor, since a substantial portion of the port's cargos came from, or went to, the Midwest. Cargo containers which were unloaded at the Brooklyn docks would need to take approximately half a day to travel through the crowded streets of Brooklyn and Manhattan, before reaching the New Jersey Turnpike. But the Chicago-bound containers unloaded at Port Newark could already be halfway across Pennsylvania in the same period of time.

Shortly after McLean officially announced his entry into trans-Atlantic services, Moore-McCormack and a half-dozen other major shipping lines announced that they were going to transfer their base operations from New York to Port Newark. Several other major shipping lines (United States Lines, American Export Import Lines) made a different decision: they would try to adopt containerization, but to keep their operations based at the New York waterfront. Within a few years, the major shipping lines which remained in New York lost most

of the customers to the lines that had moved to Port Newark, and, as a result, went bankrupt.

Simultaneous Abandonment of Railroads' Cross Harbor Services

There was also another very important reason which sparked “tipping point” in the late 1960s, but which was not directly related to containerization. This was the decline and abandonment of the railroads' cross-harbor transport services. For more than a hundred years, the railroads serving the Port of New York had not only brought their cargos to the shore of the Hudson, but had also maintained fleets of barges, lighters and car floats to transport the cargos between the ships along the New York waterfront and their railway terminals in New Jersey.¹²

But during the 1950s and 1960s, American railroads—particularly those of the Northeastern United States—were in a state of economic decline. Railroads had been steadily losing business to competing forms of transportation, particularly trucks carrying short-distance and long-distance cargos, and airplanes carrying long-distance passengers. In addition, consumer demands were changing, particularly concerning fuels. Coal, which had traditionally been the principal cargo of most railroads, was being replaced by oil and natural gas, which were carried by pipelines rather than by railroads.¹³

By the mid-1960s, most of the railroads serving the port were facing the prospect of bankruptcy. As a response, they all began considering abandoning their practice of “free lighterage services” between New Jersey and New York City. The

process started in 1965, when the Lehigh Valley Railroad (principally a coal carrier which had been particularly hard hit by changing fuel demands) applied to the Interstate Commerce Commission (hereinafter I.C.C.) to drop its lighterage services.¹⁴ The following year in 1966, Moore-McCormack and several other major trans-Atlantic shipping lines announced that they were going to adopt containerization and move their operations from NYC to Port Newark. The declining demand for cross-harbor services resulting from the shipping lines' move to Port Newark soon motivated other railroads to drop cross-harbor services. In 1970, the B&O Railroad and the Central Railroad of New Jersey also announced plans to drop these services. And after more shipping lines moved from NYC to Port Newark, the recently created Penn Central Railroad petitioned the I.C.C. to begin charging its customers for the cross-harbor services.¹⁵

What you had during the late 1960s and early 1970s was a very powerful and totally unexpected interaction between the shipping industry's adoption of containerization and the railroad industry's abandonment of cross-harbor services. When the railroads began announcing plans to abandon the service, this prompted the shipping lines to reconsider the viability of staying at Manhattan and Brooklyn. As the shipping lines began to migrate to Port Newark, the other railroads realized that less and less cargoes would be using their lighterage, and so they too began to apply to abandon that service. In effect, the Lehigh Valley Railroad's announcement of its intention to abandon cross-harbor services in 1965 initiated a descending "death spiral," in which decreased services caused decreased demand,

which resulted in further decreased services, which resulted in further decreased demand, and on and on.

The final result was that by 1975 virtually all of the major shipping lines were based at Port Newark, which eliminated more than 90% of the traditional market for cross-harbor services. So when Conrail was created in 1976, its analysts looked at the declining demand for such services, and at the services' high costs (high and still increasing, because they were highly labor-intensive in the most expensive labor market in the nation), and decided to drop them entirely. Since the mid-1970s, there has been only a small amount of cross-harbor railroad service; but even that depends upon a constant government subsidy of several millions of dollars.¹⁶

I want to emphasize that the process railroad abandonment of cross-harbor services was initiated independently of the process of containerization. Both processes (abandonment of free lighterage service and containerization) were ultimately outgrowths of the development of the trucking industry, but the fact that they happened to occur at the same time and at the same place appears to be coincidental. These two decisions were the result of different factors impacting upon different firms in two different industries. McLean's decision to have SeaLand begin offering trans-Atlantic services in the late 1960s was not dependent upon the status of railroads' lighterage services. Similarly, the railroads' decision to abandon free lighterage was the result of decades of industry decline leading to bankruptcy. They did not—at least initially—decided to begin filing applications at

the I.C.C. to abandon that service because they heard that SeaLand was going to offer trans-Atlantic shipping services.

In other words, even if containerization had not originated at Port Newark—or even if the new technology had never been invented at all—the Port of New York would still have experienced substantial abandonment in the late 1960s and early 1970s because of the decline of the northeastern railroads.

The additional fact that containerization had originated at Port Newark and subsequently underwent a global “take-off” involving the diffusion of the new technology to the rest of the world’s seaports, meant that the impact of these two overlapping but independent processes (railroad decline and containerization) would be particularly devastating for the Port of New York.

NYC Response to Urban Waterfront Abandonment: Two Competing Interpretations

The rapid and drastic abandonment of NYC’s waterfront during the late 1960s led to a public debate over the appropriate response to this new phenomenon. This particular public debate did not attract very much publicity. Most of the attention of the press and the public (and of subsequent historians) was focused upon other high-profile political disputes during Mayor Lindsay’s administration: strikes by sanitation workers, transit workers, and other public employee unions; increases in the size and cost of social welfare programs; racial tensions; police corruption scandals; and, public school decentralization. In addition, during the

mid-seventies, there was also the question of bond defaults and municipal bankruptcy.¹⁷

But while all these other highly-visible debates were going on, there was also an examination and re-evaluation of the city's waterfront policy by city officials and politicians, businesses, labor organizations, and various citizens' commissions. They all tried to analyze the reasons for the waterfront abandonment, and also formulate an appropriate response by the city.

In general, two interpretations, or schools of thought, evolved, offering competing interpretations of this subject. The first might be called the "technological interpretation." Its major proponents were Mayor John Lindsay, members of the City Planning Commission, the Citizens' Budget Commission, Brooklyn ILA leader Anthony Scotto, and shipping executive Jacob Isbrandtsen. These men viewed urban waterfront abandonment as an inevitable, technologically-driven process. Shipping lines were abandoning the NYC waterfront because of the new technology of containerization. Containerized shipping was more attractive to customers: it was cheaper, faster and more dependable than traditional break-bulk shipping. Container shipping also needed lots of room, and there simply wasn't any more available room at the crowded Manhattan waterfront. So all the worlds' shipping lines were leaving the crowded urban waterfronts and going to where there was lots of room, to Oakland, Felixstowe, Fos, Botany Bay and other new large containerports.

Containerization (like the associated process of urban waterfront

abandonment) was a worldwide, technologically-driven phenomenon. It was a prime example of what economist Joseph Schumpeter called capitalism's "creative destruction," although containerization (and the related phenomenon of urban waterfront abandonment) was not limited solely to capitalist economies.¹⁸ It applied to all shipping, everywhere around the globe.

Nowadays, this "technological interpretation" of urban waterfront abandonment is virtually-unchallenged conventional wisdom. But back in the late 1960s there also evolved another competing explanation for NYC's waterfront abandonment, one that I shall call the "Dolchstoss" interpretation.

Let me say a few words about this particular terminology. "Dolchstoss" is a German phrase, meaning "back-stab", or "stab in the back." It was used after the end of World War I, as a catch-phrase by the German military and right-wing extremists to explain why Germany lost the war. According to the Dolchstoss legend, Germany was the greatest nation in the world; the German Army was the greatest military power in the world; and, it had never really been defeated by the Allies. Instead, the Germany Army and Germany itself had been betrayed ("stabbed in the back") by the Weimar government which had signed the Versailles Peace Treaty, by the "saboteurs, the gangsters, the war-profiteers, the Socialists and the Jews who populated Berlin."¹⁹

Getting back to NYC politics of the late 1960s, an analogous interpretation arose (in competition with the technological interpretation) to explain the decline of the NYC waterfront. According to this new type of Dolchstoss outlook, NYC was

the greatest city in the world; the Port of New York was the greatest seaport in the world; and, it would violate the very laws of nature for New York City to lose its ranking as a major seaport. The only reason that shipping was leaving the Port of New York was because it had been betrayed. Who betrayed it? The Port of New York Authority, by its supposed discrimination in favor of New Jersey.

One leading proponent of this interpretation was City Council President Paul O'Dwyer, who had worked as a longshoreman before he became a lawyer. While seeking the Democratic nomination for U.S. Senator in 1970, O'Dwyer gave a campaign speech at abandoned Pier 62 at the Chelsea waterfront (which is now part of the Chelsea Piers Amusement Complex).²⁰ He declared that Pier 62 had been closed down because of the Port Authority. That agency had “assumed such powers as no king had ever thought of assuming,” and of having “stolen our customers,” by luring ships to Port Newark. As far as O'Dwyer was concerned, container technology was irrelevant to the abandoned piers. The abandoned piers were entirely the result of treachery by Port Authority, a villain that looked out too much for the interests of New Jersey and too little for New York City. He said: “It has waxed rich on the constant flow of auto traffic in and out of New York, adding to our traffic problems, our parking problems, our pollution woes.”²¹

O'Dwyer's sentiments were seconded by many other city officials and politicians, including Manhattan Borough President Percy Sutton. Another leading proponent was ILA vice president Bill Lynch, whose union local was based in Manhattan's Chelsea district, and many other leaders of the longshoremen's union.

I have not come across any prominent businessmen who supported this theory.

I would like to note that this Dolchstoss interpretation of urban waterfront abandonment was somewhat unique, in that its scope of explanation was limited solely to the New York City experience. It could not—and didn't even try to—explain why the process of urban waterfront abandonment was occurring simultaneously in the world's other major seaports. It did not identify any persons or organizations who were simultaneously “betraying” San Francisco, London, Marseilles, Sydney, or whose treachery was causing these cities' shipping to migrate to the new containerports at Oakland, Felixstowe, Fos, and Botany Bay. It simply asserted that the Port of New York was declining because it had been betrayed by the Port of New York Authority. Period.

The Dolchstoss interpretation was also unique, because its only adherents were residents of New York. Nobody outside of New York City has ever accepted this explanation, or even seriously considered it. In fact, the very idea of attributing urban waterfront abandonment to something other than the global diffusion of containerization technology is totally alien to scholars studying the subject. If you should happen to talk to someone knowledgeable about the history of San Francisco or London, and ask them whether their waterfronts declined because they were “betrayed” by the Port Authority of Oakland or Felixstowe, they respond by looking at you like they think you are crazy, for even conceptualizing the issue of urban waterfront abandonment in those terms.

Here again you have an interesting parallel with the Germans' earlier

Dolchstoss explanation for Germany's defeat in World War I. Nobody outside of Germany ever really accepted the German Army's argument that it had never really been defeated by the Allies. Instead, virtually all non-German historians agreed that the German Army had indeed been defeated militarily, principally because of the widespread starvation brought on by the Allied blockade of Germany, and the entry of more than a million American soldiers to the battlefield near the end of the war. Nevertheless, the Dolchstoss legend took root inside Germany itself, with very important consequences for the rest of the inter-war period.

In a similar fashion, the new Dolchstoss explanation of New York's waterfront decline never took root any place outside of New York City, but it developed a very powerful following within the city. In fact, the entire history of New York City's waterfront policy since 1965 can best be understood as the result of a continual give-and-take between the two competing interpretations, and their associated conclusions regarding the appropriate public response to waterfront abandonment.

Just as there were two competing views about the causes of urban waterfront abandonment (the technological interpretation and the Dolchstoss interpretation) there were also two competing schools of thought about the appropriate response to urban waterfront abandonment. Here again there was a dramatic contrast: the proponents of the technological interpretation and of the Dolchstoss interpretation were directly opposed.

The proponents of the technological interpretation (i.e., the Citizens Budget

Commission, and the NYC Planning Commission) believed that the Port of New York had to adapt to, and adopt, the new technology of containerization, or die as a seaport. Shippers wanted containers and containerports. This meant the city had to build its own containerports, or else lose all its shipping to New Jersey. But containerports needed lots of space, so this meant writing off the Manhattan waterfront. Passenger shipping (which was facing its own decline from the growth of trans-Atlantic jet travel) would remain at a few piers on the Hudson River, but the city's cargo shipping would have to be concentrated at a few large containerports, either in Staten Island or Brooklyn.²²

This view was adopted by the NYC Planning Commission in its 1969 Master Plan for NYC, where it declared that the Manhattan waterfront, which was already being abandoned by its shipping lines, be converted to non-shipping uses.²³

The adherents of the Dolchstoss interpretation took a completely different point of view regarding the appropriate city policy. They felt that the waterfront should be used only for shipping, and for nothing else. They asserted that the reason ships began leaving the New York waterfront in the 1960s was simply because the city was charging too much for ships to use its piers, and because the city was not investing enough money in pier maintenance. According to them, it would be insane to convert the abandoned piers in Manhattan and Brooklyn to non-shipping uses. They believed that shipping would inevitably return to the Manhattan and Brooklyn waterfronts, if only the city only lowered its rates for using the piers and began spending more money to improve their conditions.²⁴

Clashing Views and Policy Formulation in Autumn 1970

As more and more shipping lines moved from NYC to Port Newark, more and more of the NYC waterfront, particularly the Manhattan piers, became abandoned. After Lindsay's inauguration for a second term in 1970, he began formulating a new city waterfront policy to implement the City Planning Commission's recommendations. He wanted make the abandoned Manhattan piers a new source of revenues, by converting selected piers to non-shipping uses.

During the summer of 1970, Lindsay formulated a new pier-conversion plan with the input of two advisors, special assistant Sid Davidoff and Culture Commissioner Dory Schary. Lindsay presented the new policy on September 2, 1970, at an al fresco press conference on abandoned Pier 45, near the western end of Christopher Street. He announced that the city would soon sponsor an "Ethnic Festival." The festival would be initiated by a series of plays and other live performances at Pier 45 and four other abandoned piers which would be converted to non-shipping uses. The city and private developers would construct a mix of movie theaters, restaurants, art galleries, parks and other types of recreation areas at Piers 40, 45, 57, 62, and 86—all lying along the Hudson.²⁵

The term "festival marketplace" would not be invented until the end of the 1970s, when it was used by Maryland developer James Rouse to describe his waterfront restoration projects in Boston and Baltimore, but that describes what Lindsay was proposing to do with the abandoned Manhattan piers in 1970.²⁶

There were two sets of responses to Lindsay's pier conversion proposal. The press was unanimously in favor of the proposal, since it would promote city cultural activities and bring some money into the city treasury.

The longshoremen took a different view. ILA President Thomas Gleason objected with a concise statement of the Dolchstoss position: "We are emphatically against any use of the waterfront facilities for entertainment purposes, or for that matter any purpose other than their intended use as longshore piers. The city should promote the port facilities so the jobs of longshoremen lost in recent years may be regained."

ILA vice president William Lynch, whose Local 791 covered most of the selected piers, was even more critical. He declared "the mayor's nuts," and immediately ordered his men to set up picket lines at the five abandoned piers. In theory, the architects, engineers and workers who were going to convert the piers to the new uses had every legal right to pass by the picket lines and begin their work. But just a few months earlier, in May 1970, during demonstrations in lower Manhattan against Nixon's invasion of Cambodia, groups of longshoremen and construction workers had attacked and beaten up large numbers of anti-war protesters. In addition other groups of longshoremen and workers had stormed City Hall and forced its personnel to raise the American flag, which had been lowered to half-mast, back to full its height.²⁷ Lindsay obtained temporary injunction against the I.L.A.'s September picketing for a few days, but the courts eventually ruled against him and in favor of the picketers' right to freedom of expression.²⁸

After a month of picketing and no work on converting the piers, Lindsay and the ILA announced that they had reached a “compromise.” Under its terms, Lindsay dropped the pier conversion proposal and announced that the 1970 Ethnic Festival would be staged in Central Park.²⁹ It was only a pyrrhic victory for the longshoremen, however, since the Manhattan piers continued to remain abandoned for the rest of the decade.

Piers 40 and 42 are now, in 2001, being converted for recreational uses as part of the new Hudson River Park. Pier 57 was eventually converted into a giant garage for MTA. Pier 62 is the site of the roller blading and skateboarding arenas of the Chelsea Amusement Complex. Pier 86 is now the location of the Intrepid Air-Space Museum.

New Policy Implementation, Failure and Revision, 1970-1976

In the meantime, back in the early 1970s, Lindsay also attempted to begin transforming a few selected locations along the Brooklyn waterfront into containerports, first with the Northeast Container Terminal Project, and then the Red Hook Containerport, both located in Brooklyn.³⁰

Basically the same pattern occurred everywhere the city attempted to build a containerport. The city would begin by trying to obtain one or two dozen acres of upland behind the working waterfront by using its condemnation powers. After several years of litigation, it would obtain legal ownership and begin to demolish all the homes and business buildings there, pave over the land, and then purchase and install giant gantry cranes at the cost of several millions of dollars apiece. The

mayor show up in front of a crowd of reporters, announce the revival of the Port of New York, have his picture taken next to the gantry crane, and return to City Hall. After he left, the new containerport would just sit there unused, steadily losing money, because virtually none of the shipping lines wanted to unload their cargoes there. All the region's shipping companies were now perfectly satisfied with their new locations at Port Newark, and saw no reason to return to Brooklyn. All of the NYC containerports were too small—only a few dozen acres compared to the several thousands of acres available at Port Newark—and, equally important, were too far away from the New Jersey Turnpike.

This policy continued under Mayor Abraham Beame, who was inaugurated as Lindsay's successor in 1974. The city would continue spending millions of dollars developing undersized containerports in Brooklyn, and later in Staten Island, that most shipping lines simply never bothered to use. This was at a time when the city was facing the prospect of municipal bankruptcy, and when its finances were taken over by a state-appointed financial board. The governor who appointed the board, however, was Hugh Carey, a former Brooklyn Congressman, so even while the board was cutting unnecessary spending, the city was still budgeting enormous sums of money to develop small and inefficient containerports at Brooklyn and Staten Island.³¹

In 1975, State Comptroller conducted an audit of the city waterfront operations, and found that none of the city's port facilities—either traditional or containerport—were making a profit. All were kept going only at the price of a

constant subsidy of city money, totalling about \$14-15 Million by 1975. The audit was effectively an autopsy report on the Port of New York. It demonstrated that there was not a single profit-making waterfront operation anywhere at all within the city boundaries.³²

At this point, there was an important transformation of city policy. The city decided to keep spending money on keeping the non-viable containerports open, but started putting pressure on the Port Authority to contribute to the subsidy. The proponents of the Dolchstoss outlook had already given the Port Authority the reputation of a scapegoat which was responsible for the city's decline. Now they took the next logical step, and forced the Port Authority to become a "cash cow" and subsidize the consistently unprofitable waterfront operations.

Here again there are some interesting parallels with inter-war Germany. When the proponents of the Dolchstoss interpretation took control of the national government in 1933, their initial policies included confiscating the wealth of the social groups whom they blamed for Germany's military defeat.

After negotiations between the Port Authority and NYC in 1976, the Port Authority agreed to invest in, and later take over, the city's port facilities. Although no knowledgeable persons ever really expected any shipping operations to return from Port Newark, the Port Authority agreed bear most of the financial burden of "renovating" small and economically inefficient facilities in Brooklyn and Staten Island. The Port Authority also eventually agreed to take over the day-to-day operations of the remaining NYC waterfront operations, with a promise that they

wouldn't be shut down, no matter how unprofitable they became. In addition, the Port Authority also promised to impose certain limits upon the containerport operations at Port Newark, in order to protect New York City's market share.³³

As the result of this promise "to shoot itself in the foot," Port Newark's market share of U.S. shipping began to decline. The port's decline in market share accelerated during the 1980s, due to two additional factors: an increase in U.S. foreign trade with the other Pacific Rim nations; and, further adaptations of container technology to the nation's railroad infrastructure. China's invasion of Vietnam during the Third Indo-China War (1979-1980) effectively "stopped the dominoes from falling," in the words of a member of President Reagan's Administration, and ushered in a twenty-year "Pax Sino-Americana" for East Asia. The stable geopolitical environment allowed U.S. trade with Japan, China, and the "four tigers" (South Korea, Taiwan, Hong Kong, and Singapore) to mushroom, largely to the benefit of the U.S. western ports: Los Angeles, Long Beach, Oakland, Seattle, and Tacoma.³⁴

In addition, the new West Coast containerports have had the good fortune not to be entangled in a regional port authority which burdened them with the expense of subsidizing uneconomical waterfront operations at San Francisco or any other declining seaport.³⁵ The western containerports were able to use their revenues in a more productive manner, by investing in further technological innovations.³⁶ They took the lead in working with railroad companies to develop a new generation of cargo container technology involving double-stack trains and

other innovations.³⁷ As a consequence, Port Newark (and the larger entity of the Port of New York and New Jersey) fell from its ranking as the largest U.S. seaport. It was surpassed, first by the Port of Los Angeles in 1990, and then by the Port of Long Beach and several other U.S. ports during the 1990s.³⁸

When the NYC City Planning Commission audited the New York City waterfront operations in 1995, it found that their annual deficit had increased to \$40 million.³⁹ If you graph the subsidy figures for 1975 and 1995, and draw a straight line between them, you can estimate an annual subsidy currently approaching \$50 million. If you use a little more math to calculate the total sum of all the annual subsidies needed to keep the New York waterfront operations going since the early 1970s, you arrive at a figure of approximately \$700-800 million.

San Francisco, London, Marseilles, Sydney and other former seaports have managed to accept their containerization-induced loss of shipping, and have proceeded to develop their waterfronts for other, more productive uses.⁴⁰ Meanwhile, the taxpayers of the City of New York (and the Port Authority) have spent close to a billion dollars over the past three decades, in order to allow New York City the luxury of continuing to call itself a seaport.

1. This project was assisted by a grant from the New Jersey Historical Commission, a division of Cultural Affairs in the Department of State.
2. B.A., 1970, Rutgers University, Newark, New Jersey; J.D., 1976, Rutgers School of Law, Newark, New Jersey; former Administrative Law Judge.
3. Malcolm Gladwell, *The Tipping Point: How Little Things Can Make a Big Difference* (New York: Little, Brown, 2000); Mark Granovetter and Roland Soong, "Threshold Models of Diffusion and Collective Behavior," *Journal of Mathematical*

Sociology, 9: 165-179 (1983).

4. Brian S. Hoyle and David Hilling, eds., *Seaport Systems and Social Change: Technology, Industry, and Development* (New York: John Wiley & Sons, 1984); Han Meyer, *City and Port: Urban Planning as a Cultural Venture in London, Barcelona, New York, and Rotterdam*, (Rotterdam: International Books, 1999); Yehuda Hayuth, "Seaports: The Challenge of Technological and Functional Changes," in Elizabeth Mann Borgese and Norton Ginsburg, eds., *Ocean Yearbook 5* (Chicago, IL: University of Chicago Press, 1985); Gordon Jackson, *The History and Archaeology of Ports* (London: World's Work, Ltd., 1983), Chapter Six.

5. Federal and state legislation since 1921 has officially defined "the Port of New York" in such a manner as to include the port facilities located in New Jersey at Newark Bay; but, in practice, most people (including the author) continue to use the phrase "Port of New York" to designate only the piers and docks along the Manhattan, Brooklyn and Staten Island waterfronts, and continue to regard Port Newark-Elizabeth as a separate, and different, entity. Since 1972, the phrase "Port of New York and New Jersey" has been the official designation of the combined entity consisting of the New York City waterfront and Port Newark-Elizabeth.

6. Arthur Donovan, "Intermodal Transportation in Historical Perspective," *Transportation Law Journal*, 27:317-344 (2000); Gerhardt Muller, *Intermodal Freight Transportation* (Washington, DC: Eno Transportation Foundation and Intermodal Association of North America, 1999); Jameson W. Doig, *Empire on the Hudson: Entrepreneurial Vision and Political Power at the Port of New York Authority* (New York: Columbia University Press, 2001), 390-392; Frank Broeze, "Containerization and the Globalization of Liner Shipping," in David J. Starkey and Gelina Harlaftis, eds., *Global Markets: The Internationalization of the Sea Transport Industries Since 1850* (St. John's, Newfoundland, Canada: International Maritime Economic History Association, 1998); Theodore Oscar Wallin, "The Development, Economics, and Impact of Technological Change in Transportation: The Case of Containerization," Ph.D. Dissertation, Cornell University, 1974; Paul W. Chilcote, "The Containerization Story," in Marc. J. Hershman, ed., *Urban Ports and Harbor Management: Responding to Change along U.S. Waterfronts* (New York: Taylor & Francis, 1988); Yehuda Hayuth, "Containerization and the Load Center Concept," *Economic Geography*, 57:160-76 (1981); Brian S. Hoyle and David A. Pinder, *Cityport Industrialization and Regional Development* (Oxford: Pergamon Press, 1981); International Cargo Handling Coordination Association, *Containerization: A Symposium Held June 15th 1955* (New York: ICHCA, 1955).

7. For global overview, see *Lloyd's Ports of the World 2001* (Colchester, Essex, UK: Lloyd's of London Press, 2001), and *Jane's Intermodal Transportation 2001*

(Coulsdon, Surrey, UK: Jane's Information Group, 2001). For the impact of containerization at individual seaports, see: Robert A. Kagan, *Patterns of Port Development: Government, Intermodal Transportation, and Innovation in the United States, China, and Hong Kong* (Berkeley, CA: Institute of Transportation Studies, October 1990); Brian S. Hoyle and David A. Pinder, *European Port Cities in Transition* (New York: Halsted Press, 1992); Donald Fitzgerald, *A History of Containerization in the California Maritime Industry: The Case of San Francisco*, (University of California at Santa Barbara: Ph.D. Dissertation, 1986); Paul H. Sorensen, "Development of Containerization at the Port of Oakland, 1962-1974," unpublished manuscript, (Oakland, CA: Port of Oakland, January 28, 1975); Michael McGrath and Michele Thomas, "The Rise and Fall of the Port of Oakland," *Express: The East Bay's Free Weekly*, 13:1-21 (July 5, 1991); Charles F. Queenan, *Los Angeles and Long Beach: A Tale of Two Ports* (Northridge, CA: Windsor Publications, 1986); R. Douglas Brown, *The Port of London* (Lavenham, Suffolk, UK: Terence Dalton, Ltd., 1978); Ivan S. Greeves, *London Docks, 1800-1980: A Civil Engineering History* (London: T. Telford, 1980); Chris Elmers, *Dockland Life: A Pictorial History of London's Docks, 1869-2000* (Edinburgh, Scotland: Mainstream, 2000); J.H.W. Northfield, "Port Management and Operations at Felixstowe," in Institution of Civil Engineers, *Port Engineering and Operation* (London: Telford, 1985) 111-121; Alfred J. Baird, "Analysis of Private Seaport Development: The Port of Felixstowe," *Transport Policy*, 6: 109-122 (1999); G. Paul Webber, ed., *The Design of Sydney: Three Decades of Change in the City Centre* (Sydney, N.S.W., Australia: Law Book Co., 1988); Malcolm Tull, "Australian Ports Since 1945," in Lewis R. Fischer and Adrian Jarvis, eds., *Harbours and Havens: Essays in Port History in Honour of Gordon Jackson* (St. John's, Newfoundland, Canada: International Maritime Economic History Association, 1999); Marie-Louise Welker, "Marseilles-Fos," *Oceans*, 9:47-51 (1977); "Container Port Begun in France," *New York Times* (hereinafter "NYT"), Nov. 24, 1968, 84; John N. Tuppen, "The port-industrial complex of Fos," in Brian S. Hoyle and David Hilling, *Seaport Systems and Social Change* (New York: Wiley, 1984).

8. Robert G. Albion, *The Rise of New York Port, 1815-1860* (New York: Scribner's, 1939). See also, Benjamin W. Labaree, *The Atlantic World of Robert G. Albion* (Middletown, CT: Wesleyan University Press, 1975).

9. Doig, op cit.; "Sea-Land Service: The First Twenty Years, 1956-1976," *Transport 2000*, S1-S24 (May/June 1976); The Port of New York Authority, *Container Shipping: Full Ahead* (New York: The Port of New York Authority, 1975); "Robert Mottley, "The Gentleman from Maxton: a Trucker at Heart, Malcom McLean's Containerization of Cargo Revolutionized the Shipping Industry," *American Shipper*, 7:22-28; "Malcom McLean: Father of Containerization," *Via Port of New*

York-New Jersey, 4:40 (1991); Stephen Marshall, "Containerization and the Port of New York Authority, 1955-2001," unpublished paper presented at the Conference on New York State History, Wells College, Aurora, NY, June 8, 2001.

10. Richard W. Barsness, "Maritime Activity and Port Development in the United States Since 1900: A Survey," *Journal of Transport History*, 2: 167-184 (1974); Lane C. Kendall, *The Business of Shipping* (Cambridge, MD: Cornell Maritime Press, 2000).

11. George Horne, "Container Revolution's Tide Is Engulfing Shipping Industry," *NYT*, Feb. 13, 1966; "New Era Starts on the Atlantic," *Via Port of New York*, 2-5 (May 1966); "Edward Cowan, "Container Service on Atlantic Begins," *NYT*, Nov. 24, 1966, 84; "Japanese Lines to Form 2 Pools For Container-Cargo Services," *NYT*, Dec. 16, 1966, 92; "Small Ship Lines Expected to Fade," *NYT*, May 13, 1967, 66; Richard Haitch, "First Foreign Containership Rivalry Rises," *NYT*, Sept. 17, 1967, 86; Werner Bamberger, "Ship Lines Weigh Container Group," *NYT*, Nov. 7, 1967, 85; Pacific Institute of Transportation, *The Containerization Explosion* (Honolulu, HA: Pacific Institute of Transportation, 1967); London Chamber of Commerce, et al., *Proceedings, International Container Symposium* (London: London Chamber of Commerce, 1968); John R. Immer, *Container Services of the Atlantic* (Washington, DC: Work Saving International, 1970).

12. Carl W. Condit, *The Port of New York, Vols. 1 and 2* (Chicago, IL: University of Chicago Press, 1980 and 1981); "Lighterage and Storage Regulations at New York, N.Y.," *I.C.C. Reports*, 35: 47-68 (July 7, 1915); "The New York Harbor Case," *I.C.C. Reports*, 47: 643-639 (Dec. 17, 1917).

13. Richard Saunders, *The Railroad Mergers and the Coming of Conrail* (Westport, CT: Greenwood Press, 1978), pp. 295-323. See also, Frank N. Wilner, *Railroad Mergers: History, Analysis, Insight* (Omaha, NE: Simmons-Boardman Books, Inc., 1997); Michael Conant, *Railroad Mergers and Abandonments* (Westport, CT: Greenwood Press, 1982).

14. Werner Bamberger, "Port Fears Loss of Lighterage," *NYT*, Nov. 29, 1970, 84.

15. "Lighterage at New York Harbor, B&P RR and CNJ RR," *I.C.C. Reports*, 343: 658-684 (August 25, 1971); "Charges at New York Harbor, Penn Central Transportation Co.," *I.C.C. Reports*, 344: 21-61 (March 21, 1972).

16. Edward C. Burks, "Rail-Car Floating: a Chancy Business," *NYT*, Nov. 5, 1976; Joseph P. Fried, "Operator Sought for Rebuilt Brooklyn Rail Yard," *NYT*, August 31, 2000, B1; Jay Bendarsky, *Brooklyn's Waterfront Railways* (East Meadow, NY: Meatball Productions, 1988).

17. Vincent J. Cannato, *The Ungovernable City: John Lindsay and His Struggle to Save New York* (New York: Basic Books, 2001); Charles Brecher, et al., *Power Failure: New York City Politics and Policy Since 1960* (New York: Oxford University Press, 1993); Roger Starr, *The Rise and Fall of New York City* (New York: Basic Books, 1985); Jack Newfield and Paul Dubrul, *The Abuse of Power: The Permanent Government and the Fall of New York* (New York: Viking Press, 1977); Adrienne Windhoff-Heritier, *City of the Poor, City of the Rich: Politics and Policy in New York City* (New York: Walter de Gruyter, Inc., 1992).

18. The seminal formulation of "creative destruction" is stated in Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper, 1975), pp. 82-85.

19. Robert Gellately, *Backing Hitler* (NY: Oxford University Press, 2001), 70. See also, Roger Chickering, *Imperial Germany and the Great War, 1914-1918* (Cambridge, 1998), 189-191; and Richard Bessel, *Germany after the First World War* (Oxford, 1993), 254-284.

20. The planning, construction and history of the Chelsea Piers is described in Ann L. Buittenweiser, *Manhattan Water-Bound: Planning and Developing Manhattan's Waterfront from the Seventeenth Century to the Present* (New York: New York University Press, 1987), Chapter 4; and, Kevin Bone, ed., *The New York Waterfront: Evolution and Building Culture of the Port and Harbor* (New York: Monacelli Press, 1997), 36-151.

21. "O'Dwyer Scores Policy of Port Authority Here," *NYT*, June 12, 1970, 25.

22. Citizens Budget Commission, *New York City Waterfront: Opportunities and Options* (New York: Citizens Budget Commission, Inc., March 1969).

23. City Planning Commission, *Plan for New York City, 1969: A Proposal* (New York: NYC Planning Commission, 1969), Vol. 1, "Critical Issues," 51; Vol. 3, "Brooklyn," 31, 91; Vol. 6, "Staten Island," 28-35; Vol. 4, "Manhattan," 68; City Planning Commission, *The Waterfront: Supplement to Plan for New York City* (New York: NYC Planning Commission, January 1971).

24. Fred R. Field, Jr., "Trade Center Opposed" (Letter to the Editor), *NYT*, April 28, 1967, 40.

25. Information and quotes in this and the following paragraphs are taken from: George Gent, "City Plans to Use Piers as Cultural Playground," *NYT*, Sept. 3, 1970, 1; "Stevedores Block Pier Movie Work," *New York Post*, Sept. 3, 1970, 5; Mark

Lieberman, "Union Fights Culture on Our Piers," *Daily News*, Sept. 3, 1970, 5; "4 Piers Picketed by Dock Workers," *NYT*, Sept. 4, 1970, IV, 6.

26. Stephen Marshall, "James Wilson Rouse," in *The Scribner Encyclopedia of American Lives, Vol. IV 1994-1996* (New York: Charles Scribner's Sons, 2001) 462-463.

27. Homer Bigart and Martin Arnold, "War Foes Here Attacked By Construction Workers," *NYT*, May 7, 1970, 1.

28. "Court Ends Picketing Ban on Union's Pier Protests," *NYT*, September 22, 1970, 22.

29. Robert D. McFadden, "Mayor Yields in I.L.A. Pier Dispute," *NYT*, October 20, 1970, 38.

30. Information in this and following paragraphs is taken from: Martin Gansbert, "Container Port, Yes, But Where?," *NYT*, Nov. 14, 1967; Werner Bamberger, "City Buys Bush Terminal As Containership Facility," *NYT*, June 30, 1970, 82; "\$9-Million for Liner Terminal Shifted to a Container Project," *NYT*, Oct. 30, 1970; Edward Hudson, "City Acts to Save Brooklyn Piers," *NYT*, Feb. 28, 1971, BQLI 71; Edward Ranzal, "City to Build a Terminal for Trailerships," *NYT*, August 15, 1972, 1; "World's Largest Container Crane Dedicated at Brooklyn Waterfront," *NYT*, July 14, 1973; Murray Schumach, "Lindsay Leads Tour of Port to Show Its Development," *NYT*, Dec. 19, 1973, 47; Murray Schumach, "On Brooklyn's Waterfront, New Facilities and Jobs," *NYT*, Dec. 23, 1973, BQLI 43; Robert Lindsey, "Lease Signed Approving Red Hook Containerport," *NYT*, Oct. 11, 1974, 75; Grace Lichtenstein, "Navy Yard Dream Now a Nightmare," *NYT*, Feb. 9, 1975, 24; Robert E. Tomasson, "Upgrading Moves Ahead in Red Hook," *NYT*, March 2, 1975, VIII, 1; "The Waterfront: Graveyard of Broken Dreams," *Crain's New York Business*, May 13, 1991, 14; William Bunch, "On the Waterfront: All Washed Up," *New York Newsday*, Dec. 29, 1991, 5.

31. Glenn Fowler, "Many City Projects Dropped," *NYT*, Dec. 8, 1974, BQLI145.

32. Peter Kihss, "Trade Center Lost \$11.9 Million in 1975," *NYT*, Nov. 8, 1976, 35.

33. Linda Greenhouse, "Carey Wants Port Agency to Aid Some City Projects," *NYT*, Feb. 4, 1976, 16; Wolfgang Saxon, "City Weighs Shift of Port Program," *NYT*, March 14, 1976; Ronald Smothers, "Koch Discusses Use of Port Authority to Speed Building," *NYT*, Nov. 11, 1979, 1; Joyce Purnick, "Port Authority to Expand a Ship Terminal on S.I.," *NYT*, April 17, 1985, II, 11.

34. Roger C. Thompson, *The Pacific Basin since 1945: A History of the Foreign Relations of the Asian, Australasian, and American Rim States and the Pacific* (New York: Longman, 1995), Chapter 8, "Asian Economic Expansion and Strategic Change since 1980"; Gerald L. Houseman, *America and the Pacific Rim: Coming to Terms with New Realities* (Landham, MD: Rowman & Littlefield, 1995); W. Mark Fruin, ed., *Networks, Markets, and the Pacific Rim: Studies in Strategy* (New York: Oxford University Press, 1998).
35. The Port of Los Angeles and the Port of Long Beach have a common boundary and share the waters of San Pedro Bay, but have consistently rejected all proposals to join together in a regional port authority. Both ports each have more container shipments than the combined Port of New York and New Jersey (e.g., Port Newark and the Port of New York).
36. Innovators who become market leaders by successfully implementing a new technology can retain their initial advantage only by abandoning unprofitable operations based on the old technology and continually investing in R&D to pioneer the further development of successive generations of the new technology: Michael Porter, *Competitive Advantage: Creating and Sustaining Superior Performance* (New York: Simon & Schuster, 1998); William L. Miller and Langdon Morris, *4th Generation R&D: Managing Knowledge, Technology and Innovation* (New York: John Wiley & Sons, 1999); Ross Thomson, *Learning and Technological Change* (New York: St. Martin's Press, 1993).
37. Le T. Thuong, "From Piggyback to Double-Stack Intermodalism," *Maritime Policy and Management* 16: 69-77 (1989); U.S. Dept. of Transportation, *Double Stack Container Systems: Implications for U.S. Railroads and Ports, Final Report* (Washington, DC: U.S. GPO, 1990); David J. DeBoer, *Piggyback and Containers: A History of Rail Intermodal on America's Steel Highway* (San Marino, CA: Golden West Books, 1992); Frank B. Norris, "Spatial Diffusion of Intermodal Rail Technologies," Ph.d. Dissertation, University of Washington, 1994.
38. Richard Levine, "New York Port Loses Top Spot To Los Angeles," *NYT*, June 12, 1990, B1; R. Hanelt and D. Smith, "The Dynamics of West Coast Container Port Competition," *Journal of the Transportation Research Forum*, 28: 82-91 (1987); "On the beaten track: a view of US West-Coast container port competition," *Maritime Policy and Management*, 16: 93-107 (1989); Michael Kuby, "Technological Change and the Concentration of the U.S. General Cargo Port System, 1970-88," *Economic Geography*, 68: 272-289 (1992); Yehuda Hayuth and Douglas K. Fleming, "Concepts of strategic commercial location: the case of container ports," *Maritime Policy and Management*, 21: 187-193; John Gulick, "It's All about Market Share: Competition among U.S. West Coast Ports for Trans-

Pacific Containerized Cargo," in Paul S. Ciccantell and Stephen G. Bunker, eds., *Space and Transport in the World-System* (Westport, CT: Greenwood Press, 1998).

39. Clifford J. Levy, "Port in a Storm: Planners Question the City's Maritime Future," *NYT*, August 20, 1995, B1.

40. Ann Breen and Dick Rigby, *The New Waterfront: A Worldwide Urban Success Story* (New York: McGraw-Hill, 1996), and, *Waterfronts: Cities Reclaim Their Edge* (New York: McGraw-Hill, 1993); Marc J. Hershman, ed., *Urban Ports and Harbor Management: Responding to Change Along U.S. Waterfronts* (New York: Taylor & Francis, 1988);

Anthony Wylson, *Aquatecture: Architecture and Water* (New York: Van Nostrand Reinhold Co., 1986).