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America's Leading International Trade Centers and their Entrepreneurial Agencies: Challenges and Strategies in the New York and Los Angeles Regions

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Abstract – This is a comparative and historical analysis of the trade-development challenges that face the New York and Los Angeles areas, where more than one-third of all international U.S. airborne and waterborne trade (measured by value) enters and leaves this country. These two regions historically developed different governance systems for their airports, seaports and freight-rail systems, dating back to the early 1900s. New York has a centralized system for its air and sea terminals, featuring the bi-state Port Authority of New York and New Jersey. Los Angeles has a highly decentralized system with semi-autonomous city departments in Los Angeles and Long Beach governing the seaports and international airports. The Los Angeles region's freight-rail is governed by public/private joint-powers agreements, while New York's is largely private.

What impact have these different governance systems had on trade, infrastructure, and regional development? How have the regions grappled with challenges such as the hard times of the 1930s, the early 1990s, and the current economic downturn? Can these metropolitan areas manage the expected trade growth while dealing with increasingly strict environmental regulations, the greater costs imposed by post-9/11 security concerns, and newly empowered local communities?

The entrepreneurial agencies discussed in this paper will occupy a major role in meeting these challenges, which will require greater levels of cooperation among these and other public and private entities. Does the multi-functional approach of the Port Authority place it in a stronger position to manage the challenges of the early 21st century? If so, how can such a large, complex agency balance burdens and benefits, and maintain accountability to its different constituencies? Does Los Angeles need more bureaucracy and less democracy? With wholesale governance changes more or less off the table, how can public officials in that region overcome their endemic fractionalization to serve the greater good?

In their varying structures and range of responsibilities, these major entrepreneurial agencies illustrate distinctive ways in which large regions can design and operate transportation networks, as cities and states grapple with economic-development needs in a global environment. Their successes (and failures), and the opportunities and obstacles they face, should offer useful lessons to other cities and regions around the world.

This paper is divided into three sections. The first part examines the early 20th century creation of these public agencies and their major projects and development through 1990. The second section explores the mounting challenges to these agencies and their trade facilities, 1990-2009. The final section considers strategies needed to grapple with long-term challenges, including competitive threats from rival trading regions, the need to handle expanding air and sea traffic, security issues, and environmental concerns. We address these questions using original source materials, interviews with past and current officials and stakeholders, and statistical analyses of regional trade, traffic and economic data.

Los Angeles and New York are linked by their pre-eminent role in international trade. They are the nation's top two centers of foreign trade, far exceeding other international gateways. Table 1 shows 2008 U.S. merchandise trade by shipping mode for the nation's top-ten customs districts. With \$432 billion in global trade, Los Angeles ranked first in the value of vessel cargo and third in air cargo shipments. With \$377 billion in global trade, New York ranked first in air cargo and third in vessel cargo.

Table 1. U.S. Merchandise Trade by Shipping Mode, 2008

Rank	District	Vessel	Air	Land	Total
1	Los Angeles	349,509.1	78,667.3	3,693.9	431,870.3
2	New York	190,492.0	182,656.0	4,292.4	377,440.4
3	Houston	223,185.8	13,554.0	484.6	237,224.4
4	Detroit	6,446.3	4,428.5	220,266.7	231,141.6
5	New Orleans	142,447.4	55,218.3	7,431.4	205,097.1
6	Laredo	972.4	544.2	171,830.0	173,346.5
7	Seattle	82,843.6	13,881.2	58,246.0	154,970.8
8	Chicago	1,611.0	97,257.6	31,532.5	130,401.1
9	San Francisco	62,116.5	53,415.3	275.9	115,807.7
10	Savannah	65,927.1	32,499.2	1,760.5	100,186.7

Source: U.S. Department of Commerce, Bureau of the Census, FT 920 U.S. Merchandise Trade: Selected Highlights (Washington: December 2008). (Vessel, Air, Land, Total in millions of dollars.)

With domestic manufacturing and other traditional sources of growth either slowing down or declining, international trade will become an increasingly important component of economic development in the United States. Thus, NY and L.A. trade activities have both local and national importance.

The vital international commerce that pours through these two regions is supported by extensive networks of airports, seaports and freight-rail lines. Table 2 displays the nation's leading global gateways for 2007. In terms of the value of international trade, one half of the nation's top-ten global gateways (ports, airports and land ports-of-entry) are located in Los Angeles and New York: the Port of Los Angeles, the Port of NY/NJ, JFK International Airport, the Port of Long Beach, and Los Angeles International Airport.²

Table 2 Top Ten U.S. Global Gateways, 2007 (in billions of dollars)

Rank	Gateway	Type	Exports	Imports	Total
1	Port of Los Angeles	Water	29.9	150.4	180.2
2	Port of NY / NJ	Water	40.6	124.6	165.2
3	JFK Int'l. Airport	Air	77.0	84.2	161.2
4	Port of Long Beach	Water	26.7	120.4	147.1
5	Detroit bridges	Land	73.3	63.3	136.6
6	Port of Houston	Water	53.4	61.2	114.6
7	Laredo bridges	Land	47.4	63.0	110.4
8	Chicago airports	Air	33.4	53.1	86.6
9	Los Angeles Int'l. Airport	Air	41.6	38.0	79.6
10	Buffalo bridges	Land	38.6	40.0	78.6

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2008*, Table 1-47.

The expansion of these transportation networks in the past century was essential to the central national role now occupied by these two regions; and expanding trade has been a driving force in the past 100 years in stimulating (and justifying) the building of docks, rail lines, airports and associated facilities.

Since early in the 20th century, the crucial assets in both regions have been planned, constructed and maintained by powerful public agencies, partially insulated from both local and state governments. Global market conditions have been important, but these insulated agencies—operated by creative regional entrepreneurs—have enabled L.A. and NY, more than other West, South, and East Coast competitors, to build local economies strongly shaped by trade opportunities.

In the New York-New Jersey region, port-related activities generate more than 400,000 jobs each year, and in the Los Angeles area, the estimated total is more than 550,000 jobs—many of them well-paid blue-collar jobs, in regions with declining opportunities in manufacturing. And through their activities in airports, seaports and freight-rail, these agencies have had an important impact in shaping economic development in their metropolitan areas.

In the New York region, a large portion of these transportation networks has been constructed by a single bi-state agency, the Port Authority of New York and New Jersey (PANYNJ, or simply the PA). In contrast, the Los Angeles system is decentralized. Separate municipal agencies were created to govern its major airports and seaports. More recently, other L.A.-area communities have acquired greater voice through the creation of new authorities to govern inland airports and freight rail facilities. These different organizational arrangements shape the capacity of the lead agencies in both regions to decide on priorities for investment and expansion, and to respond to external actors who bring their own agendas for regional development and institutional power.

The appointed boards of these agencies reflect (albeit imperfectly) the political orientations of the local and state officials who appoint them. In L.A., mayors have recently been able to seize greater control over the commissions governing airports and marine terminals. Moreover, the decisions of these public agencies are subject to public veto via the initiative process. In the New York region, the Port Authority is spared public referenda, but the governors of New York and New Jersey appoint the agency's commissioners – who generally bring a mix of seasoned private and public-sector experience to their review of the agency's agenda -- and those elected officials have at times used their appointing and veto power to bend the agency to their will.

Political pressures have both shaped and reflected the functional missions of these agencies. In L.A., the separation of seaport and airport facilities encourages a narrow policy-making focus; resources gathered in one area cannot be used to develop and modernize in other fields. The multi-faceted PANYNJ, in contrast, must balance priorities and resources across many transportation and other development arenas, and so it faces demands to alter its plans in response to many competing constituencies.

Despite the current severe economic downturn, the volume of international trade is expected to grow substantially over the next 10 to 20 years. Traffic in and out of L.A. seaports and airports is likely to double between now and 2020, and the New York region may see similar growth. Existing facilities will need to be modernized and expanded, and new facilities will have to be developed. In L.A., this means improving under-utilized suburban airports to take the load off Los Angeles International Airport (LAX) and upgrading existing rail facilities to mitigate the burden on local roads. In the New York region, the Port Authority has taken control of 115 acres in Jersey City for new rail and port terminal space, and it has purchased a rail-float barge, which will be used to convey rail cars across New York Bay, reducing truck movements along congested highways in the region. The recent addition of Stewart Airport, 60 miles north of Manhattan, should help to meet expanding air-travel demand. With future passenger traffic being attracted to outlying airports, ground access issues will become increasingly crucial in both regions.

Figure 1 displays the aviation, seaport, and other facilities operated by the Port Authority of NY & NJ. Of particular importance are JFK International Airport, Newark Liberty International Airport, and Port Newark/Elizabeth. Figure 2 shows the Los Angeles area's decentralized airport system. Of particular significance are the two international airports operated by Los Angeles World Airports, a municipal agency: Los Angeles and L.A./Ontario International Airports. Figure 3 shows the Ports of San Pedro Bay (Los Angeles and Long Beach), the region's major rail lines and yards, the Alameda Corridor separated-grade rail line from the ports to the downtown L.A. railyards, and the Alameda Corridor East project of planned separated-grade rail lines from the downtown railyards to the region's eastern boundary.

Figure 1. Port Authority of New York & New Jersey



Figure 2. Los Angeles Airport System

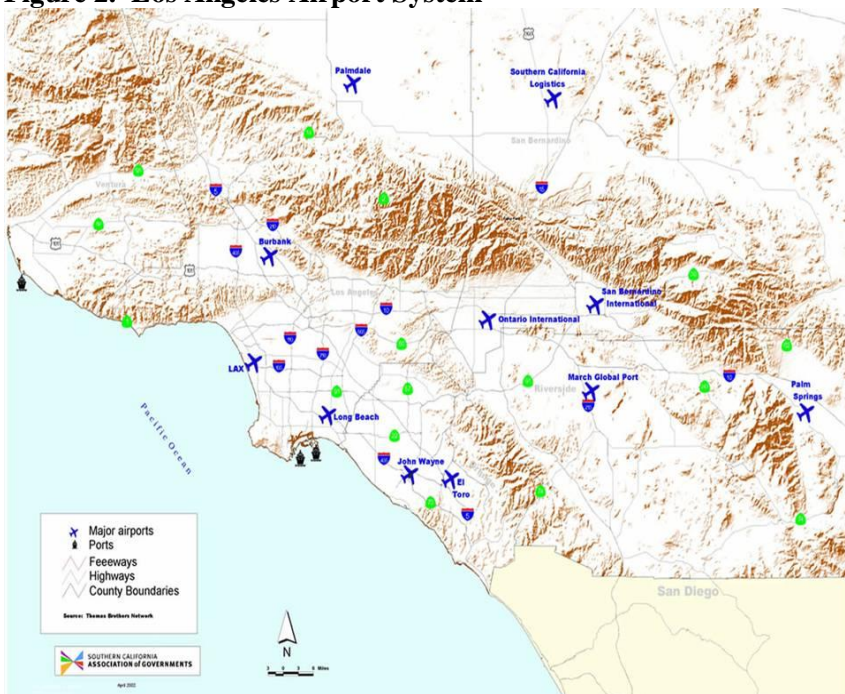
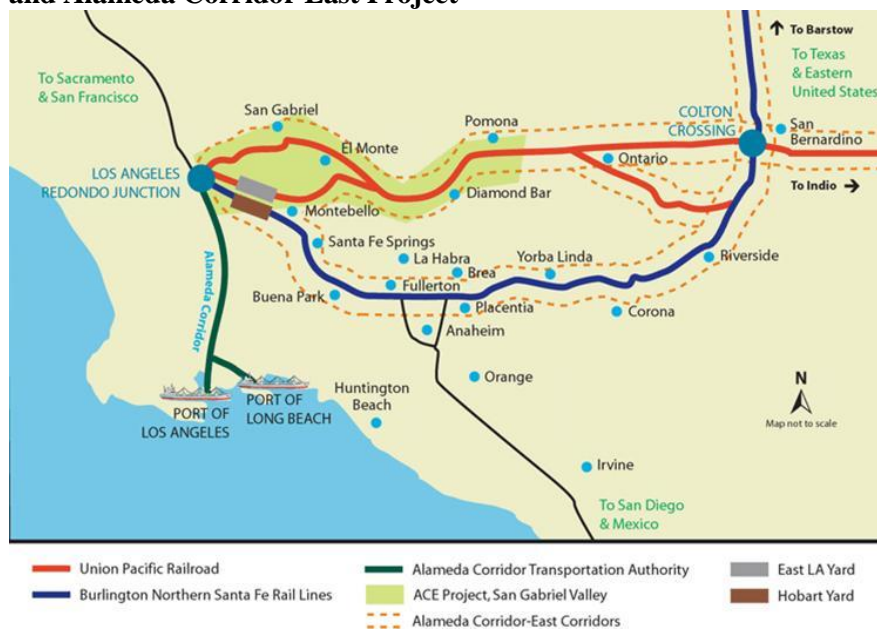


Figure 3. The Ports of San Pedro Bay, the Alameda Corridor, and Alameda Corridor East Project



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CREATING NEW AGENCIES AND FACILITIES

In the following pages we provide a brief pre-1990 institutional history of the Port Authority of New York & New Jersey, the Los Angeles and Long Beach municipal Harbor Departments, and

Los Angeles World Airports. Special attention is paid to how institutional and project autonomy was initially achieved as well as the contribution of bureaucratic entrepreneurs in planning, constructing and maintaining the key components of each region's infrastructure portfolio.

The Port Authority Story: The Search for Autonomy, Power and a Wide Portfolio.

The Port Authority of New York & New Jersey (PA) was created in 1921 after years of conflict between the two states on how to develop and control international and regional shipping. Resisting the demands of New York City officials that they be given a large role in improving freight transportation in the region, state officials agreed to establish a joint agency via interstate compact. Initially titled the Port of New York Authority, the bi-state agency was governed by six commissioners, three appointed by the governor of each state. Under the Compact, the PA would carry out its operations in a "Port District"—which encompassed 1500 square miles, including the largest city in both states and more than 300 cities and towns in 17 counties.³

The new agency soon devised a plan to construct railroad tunnels that could carry rail freight from the West and South under the Hudson River and Upper Bay to New York's piers, where goods could be transferred to ships bound for Europe and other destinations, and to trucks for distribution in the large local market.⁴ The railroad executives resisted, insisting that competition among the rail lines was a better way to achieve an efficient transportation and trade system (and greater profits for individual rail corporations). By the late 1920s, the Port Authority's leaders could see that railroad cooperation in constructing railroad tunnels was unlikely. The agency had, in its design, a fairly strong degree of autonomy; but it seemed to have little power to carry out the tasks assigned to it.

However, the Port Authority was able to create a second line of entrepreneurial attack. The primary reason for creating the agency had been to solve the problem of sending railroad freight across the Hudson. But Julius Henry Cohen, the lawyer who drafted the bill creating the agency, had written its charter in much broader terms: the Port Authority was given "authority to purchase, construct, lease and/or operate any terminal or transportation facility" within the port district. The agency was given no taxing power, but it had the right to charge for the use of any facilities it constructed and operated. With the approval of the two states, it soon embarked on a program far removed from railroad operations. Between 1924 and 1937, the George Washington Bridge and two tunnels for trucks and automobiles were constructed across the wide Hudson River; and three vehicular bridges were built over the narrow waterway that separates New Jersey from Staten Island.⁵

All these crossings generated toll revenue from trucks carrying freight as well as from passenger vehicles, but during the 1930s and early 1940s, the Depression and gas rationing limited the flow of traffic, and the Port Authority could barely meet its expenses. As the war drew to a close, however, led by a new executive director, Austin Tobin, the Port Authority staff carried out a wide-ranging study of possible projects; and the surge of postwar traffic – especially across the GW Bridge and the Holland and Lincoln tunnels – generated millions of dollars of "excess" revenue that the PA might use for other projects in the transportation field.

Perhaps the most challenging task was to gain control of the region's major airports, which were viewed by local citizens and public officials much as sports teams are today – as symbols of municipal pride, and emblems of a city's important position on the national scene. Tobin and his aides soon devised a strategy that by 1947 gave the Port Authority control over Newark Airport, LaGuardia, and Idlewild (now JFK). Tobin pointed out that PA toll revenues from the bridges and tunnels could be used to modernize the airports, thus allowing the cities to use tax revenues to meet other needs. He also argued that all three major airfields should be operated by one agency, to ensure a coordinated, efficient regional operation and to safeguard against "destructive competition" between the two cities. With wide support from business leaders and newspapers in both cities, the Port Authority assumed control of LaGuardia and Idlewild in April 1947 and in the fall of 1947 the PA extracted Newark's airport and also its marine terminals -- an array of decrepit piers -- from a

reluctant city government. In 1952, the agency also took charge of Hoboken's piers along the Hudson.

In 1948, the PA bid for the extensive piers of Manhattan and Brooklyn, but New York City officials – motivated by a mixture of civic pride and concern that patronage slots at the piers would be lost – rejected that offer as well as a further offer from the bi-state agency in 1949.

Using funds from tolls on the George Washington Bridge, the Holland Tunnel and the Lincoln Tunnel, Tobin and his aides soon modernized the Newark and Hoboken marine terminals, and during the years 1952-55, freight tonnage increased at the agency's Newark and Hoboken terminals by more than 15% a year. It seemed clear that more pier space was needed, and New Jersey state officials approved a plan to extend the Newark port facilities south into Elizabeth, with new terminals to be built on 640 acres of tidal marshlands. The PA staff then entered into negotiations with Malcom McLean to design pier facilities at Newark and Elizabeth so they could transport containers, and by 1962, the Port Authority's containerport operations carried goods to terminals in L.A.-Long Beach, Oakland, and European ports.

The Port Authority welcomed the large investments in container facilities that were made at the West Coast ports. Those investments, combined with containerport expansion at Rotterdam and other international destinations, meant that by 1970 – when the equivalent of nearly 300,000 loaded 20-foot containers were handled at Newark/Elizabeth – the Port Authority had major partners in its container operations, and operated the world's largest container operation, followed in order by Oakland, Rotterdam, Sydney and Los Angeles.

Once the Port Authority had captured all three of the region's major airfields – Newark, LaGuardia, and Idlewild – competition among airport operations within the nation's largest metropolitan area was ended. The other airfields served only small planes and largely local service. But for the PA's leaders, in air transport as in seaport activity, modernization and expansion required partners across the nation and overseas. So the Port Authority took the lead in creating the Airport Operators' Council, which soon included authorities and cities that operated major airports in Los Angeles, Boston, San Francisco, and London, along with other large American and European cities. The AOC then pressed demands on Pan American, United and other major carriers to increase their landing fees, so funds would be available to expand and improve major airfields, which had suffered from neglect during World War Two. That battle was won in 1949, and the Port Authority and its fellow airport operators were assured of a continuing flow of funds from the airlines – enough to ensure that most airports could be self-sufficient as airline passengers and air cargo increased in the 1950s and beyond. The airport operators would no longer be dependent on the willingness of local budget officials to allot moneys to airfield operation and modernization.⁶

By 1990, the Port Authority had expanded its domain to include a vast array of activities – large marine terminals at Newark and Elizabeth, plus smaller port facilities at Hoboken, Brooklyn and Staten Island; the three major airports plus a small airport at Teterboro in New Jersey and the Manhattan Heliport; industrial parks in the Bronx and at two sites in New Jersey; real-estate developments in Newark, on Staten Island, and at the World Trade Center; plus four interstate bridges and two tunnels, and the Port Authority bus terminal in Manhattan. As described below, the agency had also agreed to take control of a bankrupt commuter rail system, rename it the Port Authority Trans-Hudson system (PATH), and modernize it at great expense.

The revenue streams from the GW Bridge, the Lincoln and Holland tunnels, and the airport parking lots far exceeded funds required at those facilities, providing essential moneys needed at the deficit-producing operations, notably the marine terminals and PATH. Most of the decisions on how to allocate funds at these many facilities have been made objectively, based on careful staff studies; however, political reality has required that continual efforts be made to spread capital spending fairly evenly between the two states. Until the early 1960s, the primary criterion in acquiring or building a facility had been that it would – in the long run – be self-supporting. But that standard had been set aside when, in 1962, political pressure led the PA to take control of PATH, a project certain to

generate large deficits.⁷ By the 1970s, the Port Authority had begun to work with local officials in creating “economic-development” projects in the Bronx and elsewhere in the Port District, and the governors and local officials soon found it possible to siphon off substantial sums to aid their own pet projects. But staff analysis and preferences still dominated in the way the PA used its funds. And the agency continued to add to its domain: In 1989, the Port Authority provided capital improvements and operational support for ferry service operated by private firms across the Hudson, from Hoboken to near the World Trade Center; within a few months these ferries were carrying more than 4,000 passengers a day.

In both NY-NJ and L.A.-LB, railroad service has been a critical component in the expansion of container service and therefore in the ability of these regions to maintain viable ports, with their impact on economic development in the wider regions. In the New York area, as described earlier, rail access to the piers was an important factor in the debates surrounding the creation of the Port Authority. It was also crucial in the ability of the Port agency in recent decades to expand the reach of its container service beyond local markets. Trucks delivered containers from customers within 200-300 miles of the port; but the railroad network extended across the country and reached important mid-western markets essential to the port’s continued growth. By the 1980s, the freight rail lines were a major factor in gathering and distributing freight in containers across the country. Rehabilitated rail lines ran within a few miles of the Newark and Elizabeth piers; and the PA had to invest in rehabilitating decrepit local links to the piers.

Commuter rail transit has never been part of the domain of the San Pedro ports, but it has been a major headache and a major challenge for the Port Authority since the 1950s. Throughout the 1940s and most of the 1950s, the agency’s leaders resisted pressure to devote a portion of its revenues to rail transit, and in 1959 the PA agreed reluctantly to take part in a modest program to provide commuter cars for the region’s railroads. As the region’s commuter railroads teetered on the edge of bankruptcy and some were declared insolvent in 1959-61, the two state governors and their aides pressed the Port agency to do more. Early in 1962, the PA agreed to take over a key commuter rail line in the bi-state area – the bankrupt Hudson and Manhattan Railroad – and to modernize and operate it in perpetuity. The Port agency created a new entity, the Port Authority Trans-Hudson Corporation or PATH, to carry out its new duties.

The H&M carried thousands of commuters a day from Newark and Jersey City to downtown and midtown Manhattan. From a regional point of view, aiding that commuter line could be viewed as consistent with the PA’s general purpose – maintaining transportation services that were important to the economic strength of the wider region. However, the Port Authority had resisted taking responsibility for this and all other commuter rail lines, because its agency’s leaders believed that commuter rail operations – however efficiently run --would generate large deficits, undermining the PA’s ability to modernize airport, marine and other facilities. For the Port Authority, the decision to allocate some of its funds to rail was made easier because of two related provisions in the H&M legislation: the Port agency would not be asked to take on other large duties in the rail field, and that provision was imbedded in all bond contracts that would be issued in future years. Moreover, the PA was given permission to devote some of its surpluses to building a World Trade Center, a project of great interest to Tobin and his colleagues, though it had only a thin justification as a “transportation-related” project.

In the past twenty years, the Port Authority has taken further steps to aid rail transit, most notably in financing a rail connection between Newark Airport and the Northeast rail corridor, and a rail link between JFK Airport and the New York City subway system (as well as the Long Island Rail Road). Also, in the past several years the Port Authority has constructed rail tracks that permit railroad cars to travel onto its docks, so that containers can be loaded directly from ships to rail cars that move into the national railroad system. Labeled ExpressRail, the system will – when completed in 2011 – be able to handle 1.5 million cargo containers each year.

Los Angeles: Strategies for Building Powerful, Semi-Autonomous Municipal Departments.

The Ports of San Pedro Bay and Los Angeles International Airport are improbable and remarkable achievements whose creation and development required innovative public-private partnerships. In the beginning, private interests predominated. Local business groups such as the L.A. Chamber of Commerce played major roles in the creation and early development of the region's global gateways. Later, durable public-private partnerships formed as bureaucrats fashioned close working relationships with their clientele groups—the shippers, carriers and airlines—and with the federal government. In the late 20th century, this system of bureaucratic clientelism underwent challenge by community, labor, minority, and environmental groups seeking greater influence in agency planning and policymaking.⁸

In the sixty-year period from the New Deal through the administration of L.A. Mayor Tom Bradley (1973-93), the region's ports were fundamentally transformed from small-scale, local-market-oriented facilities to major wartime arsenals of democracy and, finally, to world-class trade portals serving huge regional, national, and global markets. The hallmark of the Ports of San Pedro Bay during these years was their public entrepreneurship, which featured long-term strategic planning and development, agile responses to market forces stemming from trade globalization and containerization, and public-private partnerships. The region's visionary harbor entrepreneurs included L.A. port manager Clarence Matson and Long Beach mayor and city manager Charles Windham.

Significantly, Los Angeles and Long Beach port competition and entrepreneurship in the postwar era affected Port Authority of NY & NJ planning and development. With the launching of the 1960s-era containerization revolution—initially helping bi-coastal cooperation between West Coast ports and the Port Authority—a fierce battle for container traffic erupted among West Coast ports, particularly Los Angeles and Long Beach. This competitive battle would in time relegate the New York-New Jersey ports to third place, behind L.A. and Long Beach. In the early 1960s, the Port of Los Angeles allotted \$51 million in revenue bonds to constructing container facilities. Long Beach responded by creating a 310-acre landfill to accommodate its expanding container operations.

By the 1970s, the two West-Coast ports were diverting a substantial amount of shipping from the Far East that used to pass through the Panama Canal and leave its cargo at Port Authority piers. The Port Authority realized that those ports had important advantages – proximity to Asia, an arena of vastly expanding trade; deep ports, which could readily handle the increasing large container ships; and the best transcontinental rail access (the Southern Pacific, Union Pacific, and Santa Fe lines) of all West Coast ports.⁹ The PA responded by asking that the main ship channel between New York Bay and the Newark/Elizabeth terminals be deepened; but that urgent request was held up for more than a year by New York's governor, who demanded that more attention be given to increasing freight traffic through Brooklyn's docks.

The result of these several efforts can be seen in the figures for number of containers handled (expressed in 20-foot equivalent units (TEUs¹⁰)):

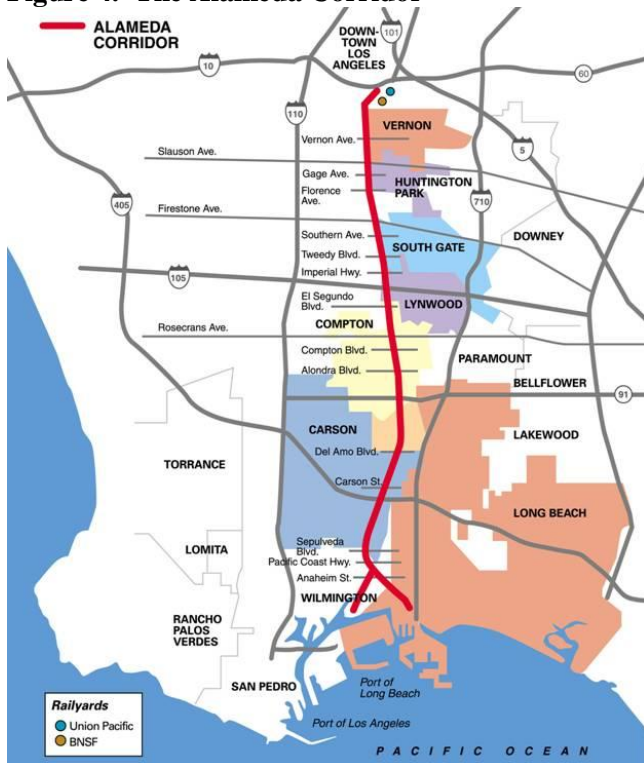
	1990	2000	2003
Los Angeles	2.6m	4.9m	6.6m
Long Beach	1.6m	4.6m	4.7m
New York / New Jersey	1.9m	3.1m	4.0m ¹¹

During the past several decades, the Port Authority and its L.A.-Long Beach counterparts have paid close attention to developments at each other's port -- and at other ports on both coasts – much as they would if they were private corporations in an unfettered market. At times, their efforts have been constrained by political pressures, and all three agencies have found portions

of their revenues diverted to other purposes. But as partially independent “profit centers,” all three have attempted to maximize income, which has entailed a sustained focus on modernization and on skilled marketing strategies.

In the Los Angeles metropolitan area, the late 20th century witnessed active collaboration between the two San Pedro Bay ports (while still fierce seaside competitors) on landside ground-access projects. Of particular note was the Alameda Corridor, a \$2.4 billion separated-grade rail project linking the ports and the downtown railyards. Figure 4 displays in detail the Alameda Corridor, the separated-grade cross streets, and the communities along the corridor route.

Figure 4. The Alameda Corridor



In 1989 the cities of Los Angeles and Long Beach agreed to use their joint-powers authority to create a consolidated rail-corridor agency—the Alameda Corridor Transportation Agency (ACTA). The 16-member ACTA board included representatives from the cities of Los Angeles and Long Beach, the ports of Los Angeles and Long Beach, state and local transportation agencies, L.A. County, and the six cities along the corridor route. In the mid-1990s the project passed environmental review despite conflicts between the ports and the corridor cities. With \$400 million in funding from the two ports and a federal loan guarantee (to be repaid from container fees), the project was completed in 2002. Soon thereafter planning began on the ambitious Alameda Corridor East project to feature separated grades extending from the downtown railyards to the eastern fringes of the metropolitan area.¹²

Starting in the 1970s, port planning and policymaking became more complex and pluralistic, in part due to new state and federal fiscal and environmental policies. In 1978 California voters approved Proposition 13, which brought property tax relief but threatened local infrastructure financing. State and federal environmental initiatives empowered community and environmental

groups to challenge port mega-projects on the basis of their environmental impact. Starting with Mayor Tom Bradley, municipal government started to reflect the city's racial diversity. Enhancing their control, particularly over revenue-producing agencies, L.A. mayors slowly reined in the city's semi-autonomous proprietary departments.

By the early 21st century, protecting the environment and nearby communities became central parts of the port mission. L.A. Mayors James Hahn and Antonio Villaraigosa pushed "green" port plans designed to mitigate the growth's adverse environmental impacts. Long Beach launched its own green port initiative. Most contentious was a costly proposal to replace older, polluting diesel trucks with newer, cleaner ones. While a labor-environmental alliance in L.A. sought to phase out independent contractors (many of them poorly-paid immigrants) with unionized truckers, more business-friendly Long Beach rejected this plan. In L.A., a new city charter enshrined local community influence with Neighborhood Councils and a local residency requirement for one of the five harbor commissioners.

Los Angeles International Airport (LAX) followed a similar public-private partnership trajectory. In 1926 the L.A. Chamber of Commerce, recognizing a burgeoning market in the aircraft manufacturing industry, began lobbying the City Council for the siting and development of a municipal airport. The economic potential of aviation led several groups of local businessmen to promote their own sites for a future airport. One location actively promoted by local boosters was a relatively small 3,000-acre swath of bean field known as Mines Field. Chosen by the City Council, this site would become the future home of LAX. Like the ports, early airport development required substantial federal assistance. During the 1930s the city purchased the then-leased airport site to meet federal requirements for WPA grants. During wartime, the federal government assumed control of the airport and improved the landing field.

In the postwar era, the city's business, civic, and labor groups actively supported LAX modernization and expansion overseen by skilled airport managers such as Francis Fox and Clifton Moore. Airport officials encouraged bureaucratic clientelism, in which the airlines received low landing fees and other concessions as growth inducements. However, beginning in the 1960s, adversarial stakeholders emerged. As LAX expanded to meet the needs of the jet-age, nearby communities organized to oppose airport growth.¹³ In the 1990s a new LAX Master Plan effort was stymied despite strong business and labor support. Community, environmental and minority groups successfully raised the issue of "environmental justice" involving the disproportionate adverse environmental impacts—air pollution, noise, and traffic—of airport expansion upon nearby minority communities.¹⁴ Mayor Villaraigosa has pushed a "regional" approach, albeit unsuccessfully, designed to shift air traffic from congested LAX to less-utilized outlying airports.

Los Angeles's global gateways have played major roles in the region's economic development and restructuring. L.A.'s hard-won early investment in a municipally owned harbor quickly led to a world-class port. By 1932 the Port of Los Angeles was first on the Pacific Coast and third nationwide (behind New York and Philadelphia) in total tonnage. By World War II, L.A. had become the shipping and wholesale center not only for Southern California but for the entire Southwest. In the postwar era, the expanding Ports of San Pedro Bay became the nation's largest port complex, serving as potent engines of trade and globalization.

Along with LAX, the ports helped cushion the impact of the 1990s-era recession as the region shifted from a defense-based to a trade-based economy. By the early 21st century, international trade was a driving force of the regional economy. Over one-quarter of the metropolitan L.A. economy depended upon global trade, up from one-eighth in the 1970s. With its superior global gateways and rail connections, L.A. had become the nation's leading Pacific Rim gateway. Ironically, San Diego, which early on enjoyed an infrastructure advantage, found itself depending upon rival L.A.'s global gateways because of chronic failure to expand its limited port, airport and rail facilities.

MOUNTING CHALLENGES, 1990-2009

The PA under Duress: Recent Projects and Political Demands.

In the past two decades, the Port Authority has faced major political and financial challenges, confronted two disasters at the World Trade Center, and added a few modest projects to its portfolio.

On the financial side, PATH continued to generate large deficits, reaching more than \$200 million a year in the 1990s – in part because the governor of New Jersey blocked fare increases throughout the decade. And thousands of dollars were siphoned off each year to aid local officials and others with political influence in carrying out their own “economic development” projects.

Meanwhile, the agency’s staff continued to develop new plans that might help to meet the region’s transportation needs. A monorail was constructed joining the terminals and parking lots at Newark Airport, at a cost of \$400 million; and later it was extended to meet the main rail line between New York and Trenton/Philadelphia. A new rail line was built from JFK Airport through Queens to connect with the Long Island Railroad and the City’s subway system. However, when the agency’s staff recommended extending the runways at Newark Airport, and dredging the channel leading to the marine terminals at Newark and Elizabeth, New York officials balked. Arguing that the PA should devote more of its energies and funds to airports and port operations on the New York side of the Hudson River, New York’s governor blocked action on these projects for several years. In 1994, New York City’s mayor attacked the PA’s alleged bias toward New Jersey and urged that the agency be broken up, so New York City could take control of its own airports and marine terminals. These were but the latest in the running skirmishes between the two states for economic and political advantage.¹⁵

As these incidents suggest, in recent years “parochial” visions have led public officials in both states to view the Port Authority less as an institution with a mission to aid *regional* economic development, and more as a source of projects that will be helpful to “my” state or city.

On a more collaborative note, the Port Authority and New Jersey’s state-owned commuter system, N.J Transit, have joined forces, and obtained the consent of New York City, to construct a new mass-transit tunnel from mid-Manhattan to northern New Jersey, where it will link to several existing rail lines. Labeled ARC (Access to the Region’s Core), the project is expected to cost nearly \$9 billion. The PA will contribute up to \$3 billion, and NJ Transit more than 2.5 billion, with the remainder, it is hoped, coming from the federal government.

The World Trade Center generated problems even before it was completed in the 1980s. When it was first proposed in the 1960s, the project was estimated to cost \$350 million. As the twin towers rose to their final 110 stories, costs rose sharply, reaching more than \$1 billion in 1980. The project was attacked on esthetic grounds, and the Port Authority was criticized for pouring vast sums into a real estate venture, money that might have been used instead to improve transportation systems in the bi-state region.¹⁶

In February 1993, a bomb exploded at the bottom of the twin towers, creating a crater five stories in depth and killing five people. Eight years later, on September 11, 2001, two planes crashed into the towers, bringing them down and killing nearly 3,000. During the past eight years, much of the Port Authority’s energy has been devoted to grappling with politics, planning and construction at the 16-acre WTC site. Some of the issues concerned rebuilding the PATH and subway stations and rail lines destroyed by the collapse of the towers; and these were soon settled, with the stations reopening in a few years. Others focused on the nature of a memorial at the site and on which stakeholders had what obligations in the rebuilding process. By 2006, the PA had reached agreements to develop and manage the Freedom Tower – expected to rise 1,776 feet. The bi-state agency has also taken responsibility for constructing the World Trade Center Memorial and Museum. These efforts have diverted millions of dollars each year – and the time of senior Port Authority officials – from the transportation challenges that form the PA’s central mission.

The L.A. Area Agencies under Siege: Fiscal, Environmental and Community Challenges.

In the past two decades the Los Angeles port, airport and freight-cargo agencies have also faced major challenges. The first crisis was fiscal, stemming from the severe early 1990s recession. The State of California diverted \$3.6 billion in city and county property-tax revenue in order to honor the state's commitment to education. A companion state law gave charter cities authority to divert revenue from their ports into their general-fund budgets for two years. In this permissive environment, fiscally-strapped cities also sought to divert revenue from other municipal revenue-producing departments (e.g., airports, water and power) in order to make up for the recession and state-induced budgetary shortfalls. Los Angeles took the lead. Under Mayor Richard Riordan, substantial revenue streams were diverted from the city's three proprietary departments: Harbor, Airports, and Water and Power. Long Beach followed suit with smaller relative diversions from its Harbor Department.¹⁷ Significantly, the L.A. and Long Beach ports and LAX had just launched massive and costly expansion programs, making their built-up cash reserves tempting targets.

Yet municipal revenue diversions from the region's global gateways ultimately were largely thwarted. Los Angeles overreached in terms of excessive port diversions and was successfully sued by the State Tidelands Commission, which oversaw the State Tidelands Trust restricting the use of port funds to approved trust purposes. Similarly, Los Angeles was forced to return diverted LAX airport funds after Congress (at the behest of the airlines) blocked the diversion. The bleak fiscal situation and changing national political dynamics also affected funding for the Alameda Corridor project. When the Republicans captured control of Congress in 1994, a planned project grant became instead a federal loan. Project planners scrambled to find a repayment arrangement, which culminated in a rail container fee.

The second set of challenges involved environmental and community resistance to trade infrastructure development plans. The ports and airports were the L.A. region's leading toxic hotspots, generating severe air pollution from vessels, trucks, and airplanes as well substantial noise and traffic congestion. As the two ports and LAX announced major expansion plans to handle the anticipated growth in international trade and air passenger traffic, neighboring communities and environmental groups fought back. The LAX Master Plan was halted by NIMBY ("Not in my Backyard") community and environmental activists successfully contesting the Plan's environmental impact report and using new tools such as environmental justice. Since the neighborhoods underneath the LAX flight path were heavily minority, the environmental costs (air pollution, traffic, and noise) of LAX expansion would be disproportionately borne by minority residents. Under a Settlement Agreement, LAX expansion was capped at 78 MAP (million annual passengers) and future air traffic growth would supposedly occur at outlying airports.

Port expansion, particularly at Los Angeles, was also buffeted by growing community and environmental opposition. In the late 1990s the restive harbor communities of San Pedro and Wilmington launched a secession campaign, similar to that launched in the San Fernando Valley, to legally separate themselves from the City of Los Angeles and create new municipalities with greater control over their own destinies. While the secession movements failed, they had salutary community effects. The Port of Los Angeles launched an ambitious San Pedro harbor-side revitalization project. Under the terms of a new voter-approved L.A. city charter, the port and airport commissions' membership was expanded, and new seats were created for members residing near these facilities. While environmental challenges to port development lagged challenges to airport expansion, they hit with full force in the new millennium. They are discussed in the next section. The next section also examines post 9/11 security challenges.

CURRENT AND FUTURE CHALLENGES AND STRATEGIES

— The Port Authority and the San Pedro ports face significant new competitive pressures that – combined with increasing environmental and security costs – threaten to erode their current positions as the premier centers for marine and air cargo in the United States. Other regions have

improved their ability to handle port and air cargo and have begun to bite into traffic at the largest ports. To respond to these threats, the PA and infrastructure agencies in the Los Angeles region will need to expand facilities in order to meet increasing demand for rapid and efficient transfer and distribution of exports and imports¹; at the same time, they will have to devote sustained effort to meet environmental standards, which are becoming ever-more stringent, and respond to possible security threats.

Container traffic through the Ports of San Pedro Bay has not grown significantly in the past several years, and in 2007 – before the current recession was in full force – traffic was essentially flat. Container traffic through PA facilities – which grew at a brisk 7% annual rate for nearly a decade – has slowed in the face of the current recession. In contrast, the ports at Oakland, Tacoma and Vancouver have seen measurable growth, and on the East Coast, Savannah now challenges NY-NJ as the premier East-Coast port. In 2007, Savannah ranked fourth in the nation in annual container volume, just behind NY-NJ. The broadening of the Panama Canal, expected to be completed by 2014, will permit 12,000 TEU post-Panamax ships with cargo bound for the East to bypass San Pedro and deliver to New York – although Savannah, deep-water terminals at Norfolk and Halifax, and other ports along the East coast will compete vigorously too.

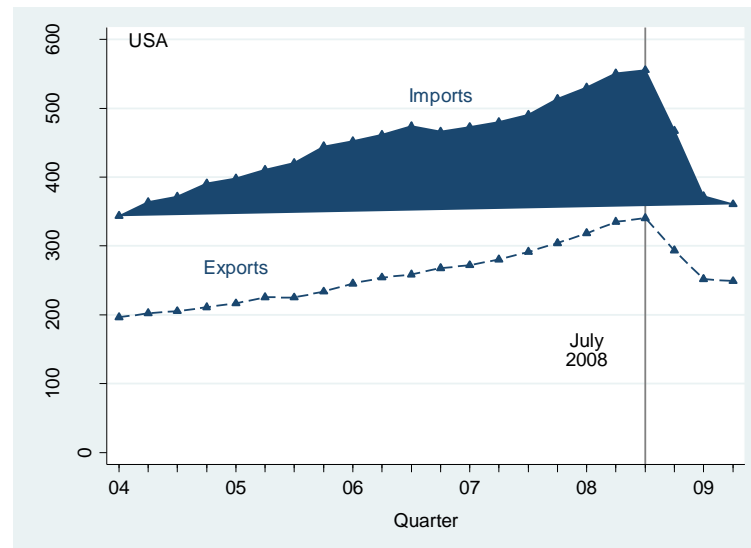
The current recession is expected to dampen trade through 2012. The economic downturn is affecting trade at all ports, and in the year ending in March 2009, American imports dropped 27 percent. As the financial crisis spread to other countries, first in Europe and later in Asia and Latin America, global demand for American cars, chemicals, planes, and technology also drastically cut exports.² Figure 1, which tracks America’s trade with the rest of the world, captures the dramatic effects of the crisis. In July 2009, American imports stood more than 35 percent below their 2008 peaks, a level not seen since early 2004. Exports dropped by 27 percent. Combined, U.S. trade with the rest of the world was down more than 30 percent in less than a year.³

Figure 5. U.S. Trade with the World

¹ Once the current recession ends. According to some observers, the L.A.-LB ports currently have excess capacity.

² Jack Healy, “U.S. Regional Economies Slip and Trade Deficit Grows,” *New York Times*, June 11, 2009, p. B3; Jack Healy and Bettina Wassener, “U.S. Trade Deficit Widens as Value of Exports Falls More than Imports,” *New York Times*, May 15, 2009, p. B4.

³ “World Trade: Unpredictable Times,” *Economist*, July 23, 2009; Mark Landler, “World Bank Expects Pain Worldwide,” *New York Times*, Dec. 10, 2008, p. B1; John W. Miller, “WTO Predicts Global Trade Will Slide 9% This Year,” *Wall Street Journal*, March 24, 2009, p. A8.



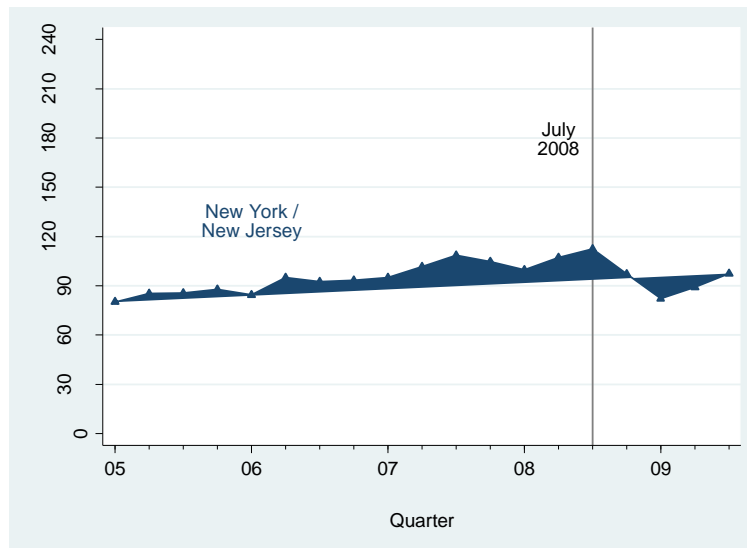
Source: U.S. Census Bureau, FT920 – U.S. Merchandise Trade: Selected Highlights

How NY-NJ, L.A.-Long Beach and their competitors respond to trading opportunities as the downturn abates may alter the relative ranking of the West Coast and East Coast ports.

Tensions between Growth and Other Goals in the New York Region

The Port Authority expects to see marine traffic recover in 2010-2011 and to expand steadily in 2012 and beyond. Figure 6 shows the volume of container traffic flowing through the ports of New York and New Jersey in recent years. Container traffic dipped noticeably following the economic downturn in 2008, although the decline was not as steep as in Los Angeles and other West Coast ports. Moreover, the increase in container traffic in 2009 suggests that the region is already on the road to recovery. In Los Angeles, the economic downturn coupled with California's fiscal crisis pose major obstacles to financing future projects. In New York, smaller traffic losses and the ability to draw upon revenue from bridge tolls and other sources have helped to insulate the PA from the difficulties faced by West Coast rivals; however, its financial capacity is constrained by declines in travel through its facilities – and by the continuing financial demands at the World Trade Center, as well as investments to aid vehicular and rail movement in the region.

Figure 6. Port of New York-New Jersey Container Traffic



Source: Port Authority of New York & New Jersey

In 2007, the PA's facilities handled more than five million TEUs, an increase of more than 250 percent since 1993. By 2015 the total may well approach six million. In order to meet such levels of demand, the agency must improve the ability of large ships (post-Panamax, carrying 8-12,000 containers each) to reach its Newark and Elizabeth terminals, by dredging the main shipping channels to 50 feet or more. That project – a joint effort of the PA and the Army Corps of Engineers – was begun in 2005 and is expected to cost \$1.5 billion, with half to be paid by the Port Authority. The required deepening should be largely completed prior to expanded Panama-Canal operations in 2014-15. (The dredging effort generates environmental concerns associated with the loss of shallow-water habitat. The PA has undertaken a range of projects to mitigate this and other environmental damage; we note a few of them later in this paper.)

In meeting challenges from West Coast ports and other terminals on the East Coast, it is crucial that the PA take steps to reduce the total time in transit to the final destination. For goods from the Far East, the Panama Canal expansion will be helpful. Another crucial step will be to increase the efficiency with which traffic is moved between ship and shore, and through distribution centers. For example, containers arriving in Newark on the main railroad line have been typically offloaded to trucks, which must navigate congested roads to reach the piers. To speed the transfer process -- and to reduce traffic on congested highways – the Port Authority has been constructing on-dock “double stack” rail facilities at Newark and Elizabeth. As noted earlier in this paper, the project-labeled ExpressRail—is now largely finished, with final steps to be completed in 2011; its total cost will be \$1.5 billion, and it is expected to remove 500,000 truck trips annually from local and state roads. In this case, reduced air pollution and improved efficiency of the cargo-handling process go hand in hand, rather than being in conflict.

The Port Authority has provided \$25 million to each state in order to improve truck and rail-freight routes across a wider portion of the region. And early in 2008, the agency acquired 115 acres along a Jersey-City peninsula to aid rail access to port and rail carfloat facilities.

It is also worth noting that the PA is once again studying that hoary plan that once was its pre-eminent project -- a rail tunnel to carry goods between Brooklyn and Jersey City, where railroads

would emerge to connect with the national rail system.⁴ Such a tunnel would improve rail access east of the Hudson River and might justify constructing a major container terminal in Brooklyn, thus increasing overall container capacity in the region -- and satisfying Brooklynites unhappy with being neglected through six decades of marine-terminal expansion in that “other” state. If built, a tunnel would also reduce the number of truck trips currently required to convey goods between Brooklyn and the mainland (New Jersey). The project seems unlikely to go beyond the drawing board, however, because of its high cost (two billion dollars or more), together with a lack of rail-terminal facilities in Brooklyn, and an absence of space for them along that shore.⁵ As an alternative strategy to reduce truck congestion and pollution in the region, the PA has begun to expand the use of rail-float barges to convey goods to and from Brooklyn, across Upper New York Bay.

While the New York region’s marine facilities have lost their once-dominant position in U.S. maritime transport,⁶ the PA’s three airports still dominate in air cargo. In 2004, 2.6 million tons were carried through these airfields; measured by value, exports at the PA’s airports were nearly \$50 billion, more than twice the value of ocean exports carried out of the region.

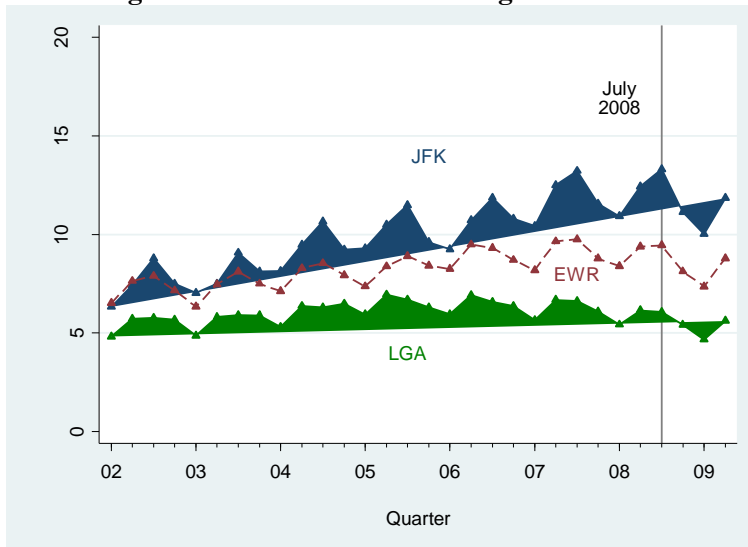
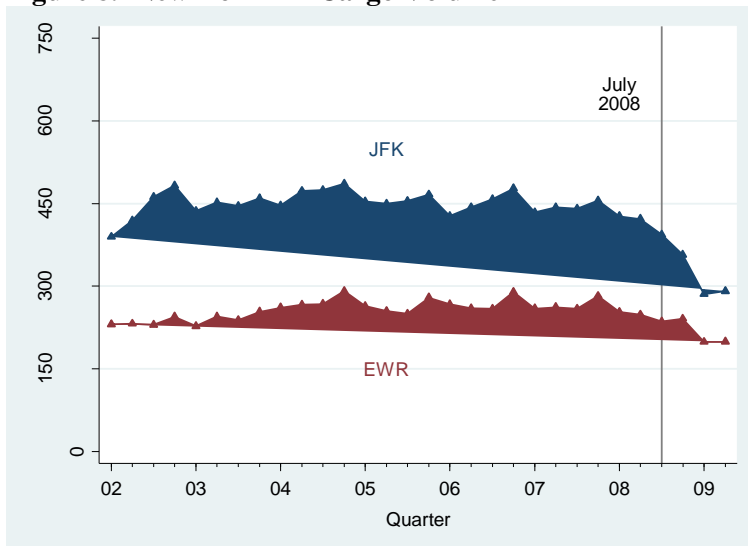
Although this paper is mainly focused on issues of freight transportation, ease of passenger travel and numbers of passenger movements are also highly relevant to economic development in the region. In the field of air transport we can readily compare passenger-related activities at LAX and Ontario with those at Kennedy, Newark and LaGuardia airports. Although the 9/11 disaster and the current recession have been accompanied by downturns in passenger travel, the general trend at the three PA airfields is positive. JFK saw 33 million passengers enter its gates in 2000; the number reached 47 million in 2008; and the PA plans to handle 54 million in 2020. The comparable totals at Newark are 34 million, 35 million and 38 million; at LaGuardia the numbers are essentially flat (25, 23, and 25 million). To handle the increases at Kennedy, the agency has completed a new building (Terminal 5) with 26 gates; it is designed to handle up to 20 million passengers per year, and is linked to a new parking garage, with a capacity of 1,500 vehicles. The PA is also studying how best to redevelop Terminals 2 and 3 at Kennedy; Newark’s Terminal B is currently being modernized at a cost of \$280 million.

Figure 7 depicts the growth in passenger volume at New York’s three prominent commercial airports. All three airports experienced sharp drops in passenger traffic in the second half of 2008, continuing into 2009. Indeed, traffic at LaGuardia and Newark reached their lowest levels since the attacks of September 11, 2001. Traffic at Kennedy International, which has seen large increases in air travel over the past five years, also declined considerably. Figure 8 shows similar patterns in air cargo volume for Newark and Kennedy airports (LaGuardia typically handles less than 10,000 tons annually). At JFK, the decline in cargo volume already underway prior to the global economic downturn accelerated in late 2008 and early 2009.

⁴ When the two states approved the Port Compact, in the spring of 1921, they required that it develop a “comprehensive plan” to improve freight transportation in the Port District. As noted earlier, the PA’s plan, published in December 1921, concluded that rail tunnels under the Hudson River and Upper New York Bay would be essential to this effort. The largest tunnel would carry freight trains between Brooklyn and Jersey City.

⁵ Also, every likely location for a Brooklyn container terminal would be difficult for trucks in large numbers to reach; and it is doubtful that existing freight railroads would be willing to use the tunnel, especially if -- as seems likely -- they would be expected to help pay for it.

⁶ L.A.-LB passed the PA terminals in total TEUs in the 1980s.

Figure 7. New York Air Passenger Volume**Figure 8. New York Air Cargo Volume**

Source: Port Authority of New York & New Jersey

In 2007, the Port Authority added Stewart Airport, 60 miles north of New York City, to its air-transport complex. Stewart's cargo and passenger operations currently connect with only a few cities, and passenger levels in 2008 totaled less than 800,000. The agency expects to expand the airport slowly, taking some pressure off Newark and LaGuardia. Sensitive negotiations with local residents and public officials are underway, as the PA works out plans for improved runways and meets the inevitable challenge of highway congestion as the airport becomes more heavily used. The agency plans to invest \$500 million in Stewart during the next ten years. Total passenger volume is expected to exceed one million in 2020.

Since 9/11, security against terrorists and other threats has been an important concern at the airports. The PA has spent, through 2008, more than 3.5 billion in capital and operating funds on

security measures. To take several examples: In 2006, the agency began a pilot program at Newark Airport using biometric fingerprint technology to enhance the ability to identify workers authorized to work in secure areas; this effort will be expanded in the years ahead. In 2007, bollards were introduced at Newark and LaGuardia, to stop vehicles with explosives from gaining access to the terminals, and this protective strategy will be introduced at other sites in the next two years. With a \$400 million grant from the federal government, improved in-line baggage screening is being implemented.

However, efforts to make the marine-container supply chain secure from terrorist threats are lagging, in part due to the sheer complexity of the task. The PA has added extensive physical- and employee-screening improvements at the Port – including the installation of radiation-detection monitors at the exit gates. Some of its security efforts have been subsequently applied throughout the industry. Like other ports, it is also in the midst of a controversial Congressionally mandated effort to install a mandatory screening system for each container by 2012 – even though, according to agency officials, no system yet exists that would adequately screen these containers without seriously disrupting marine commerce.

As suggested earlier, the Port Authority has taken a number of initiatives to reduce negative environmental impacts of its operations. These include ExpressRail, use of rail-car floats to cut down truck congestion, and modernization efforts at PATH. In 2008, the agency began giving toll reductions for drivers of low-emission vehicles. Looking ahead, the PA has set an ambitious agenda – including the goals of becoming “carbon neutral” by 2010, of developing Stewart Airport as a carbon-negative airfield, and of reducing greenhouse-gas emissions by 80 percent in 2050 (compared with 2006 levels). These goals will be met in part, however, by purchasing carbon offsets.⁷

With respect to marine operations, the PA is engaged in cooperative programs with environmental agencies and port tenants, many of them set out in the report, “Clean Air Strategy for the Port of New York and New Jersey.” The report lays out a series of steps that should be taken to reduce diesel and greenhouse (GHG) emissions in advance of anticipated regulations. These include replacing the oldest and most polluting trucks serving the port, retrofitting switcher locomotives that handle on-dock rail operations, and modernizing cargo-handling equipment.

Challenges of two other sorts, with no ready counterparts at the West Coast enterprises discussed in this paper, deserve brief mention. One is the continuing effort of the Port Authority to grapple with passenger-rail needs, at its own facilities and in nearby portions of the region. As mentioned earlier, the PA is working with NJ Transit to construct a new commuter rail tunnel connecting mid-Manhattan and New Jersey. The project, called ARC (Access to the Region’s Core), will join the old Pennsylvania Railroad tunnel (built in 1909) as the only passenger railroads entering New York City from the west. Expected to be completed in 2017, the project will cost at least \$9 billion, with the PA contributing at least \$3 billion of the total. Meanwhile, the agency has begun a multi-year program to replace old PATH cars by 2011, at a cost of \$3.3 billion.

Finally, the Port Authority’s executives, engineers and other staff are absorbed in the effort to rebuild the World Trade Center. After several years in which responsibility for the project was divided and action delayed, in 2006 the PA assumed overall management of the complex effort, which involves constructing “up to five new skyscrapers, the third-largest transit hub in New York City, ... a performing arts center, ... restoration of two city streets,” as well as a memorial and museum, and a retail complex. A crucial challenge facing the PA is the great number of organizations and individuals involved – 19 public agencies, two private developers, 33 architects and consulting firms, and 101 contractors and subcontractors. It is no wonder the PA concluded in 2008

⁷ PANYNJ, 2008 Annual Report, p. 26.

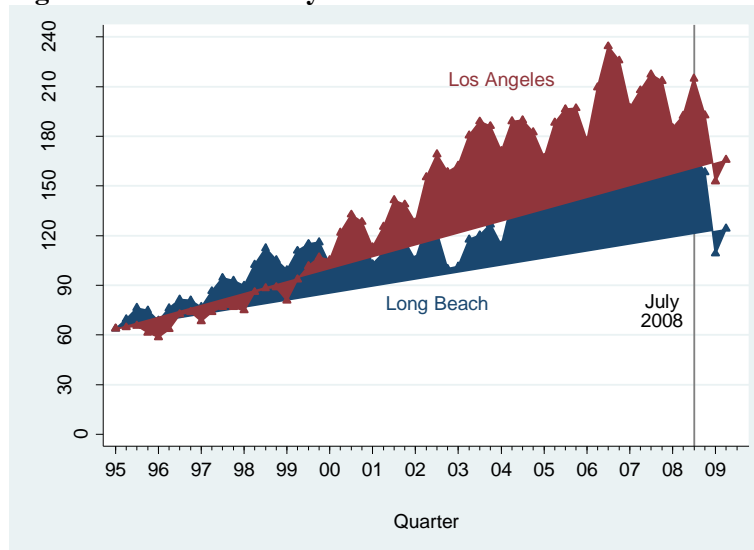
that rebuilding the Center has become “a major focus of the Port Authority’s efforts.” In 2008 alone, the PA’s capital budget related to the WTC was nearly one billion dollars.¹⁸

Skeptics have asked whether the PA’s funds and energies should be so heavily absorbed in this massive project, which – except for the transit links underground to PATH and City subways – is not clearly connected with the agency’s transportation mission. And observers in New Jersey have begun to wonder whether the agency’s commitment to devote equal funding and attention to New Jersey is being undermined by the extraordinary effort made to rebuild a portion of downtown Manhattan. This is a concern likely to confront the Port Authority as it develops its many projects for 2010 and beyond.

Economic, Environmental and Security Challenges in the Los Angeles Region

The ability of L.A.’s infrastructure agencies to maintain the region’s status as the premier international gateway on the West Coast will depend on how public officials respond to the challenges posed by international market and political forces and local political developments. The challenges are threefold. First, the economic downturn that began in late 2008 resulted in unprecedented drops in traffic. However, L.A.’s infrastructure agencies were facing drop-offs – induced by a major longshoremen’s work stoppage -- even before the recession hit and increasing competition from rival West Coast ports. Second, in recent years, local communities surrounding Southern California’s port and airport facilities, supported by elected officials and environmental groups, have formed a formidable obstacle to efforts to expand existing facilities. Improved environmental performance has become a necessary condition for political support for new projects. Third, the terrorist attacks of September 11, 2001 exposed the vulnerability of the global economy to security threats that are difficult to detect and prevent. As a result, shippers are reluctant to “put all their eggs in one basket” on the West Coast, and they are sending substantial portions of their cargo bound for distribution outside the L.A. region to other ports.

(1) Economic Challenges: Because a large majority of foreign-made consumer goods arrive into the country via waterborne vessels, the sharp economic decline in international trade depicted in Figure 5 has resulted in large drops in maritime business for West Coast ports.¹⁹ Figure 9 shows the sharp decline in containerized cargo shipments at the ports of San Pedro Bay. During the first two quarters of 2009, volume at POLA dropped nearly 30 percent. At POLB the decline has been only slightly less severe. By the end of the second quarter, combined traffic at the two ports had fallen 25 percent from the highs set in 2008.

Figure 9. San Pedro Bay Port Traffic

Source: Port of Long Beach and Port of Los Angeles

To retain current customers and attract new ones, both ports quickly cut their cargo rates. Anecdotal evidence suggests that their aggressive response has been effective. Though both ports posted significant declines in shipping volume, their losses have fallen short of those at other West Coast ports, from Oakland to Seattle. In addition, the San Pedro Bay ports appeared well-positioned to capitalize from optimistic signs of stabilization and potential economic recovery that emerged in late 2009. A survey by Moody's Investors Service showed that the two ports remained the highest-ranked by shippers, suggesting that they would be the first to experience at least partial recovery.²⁰

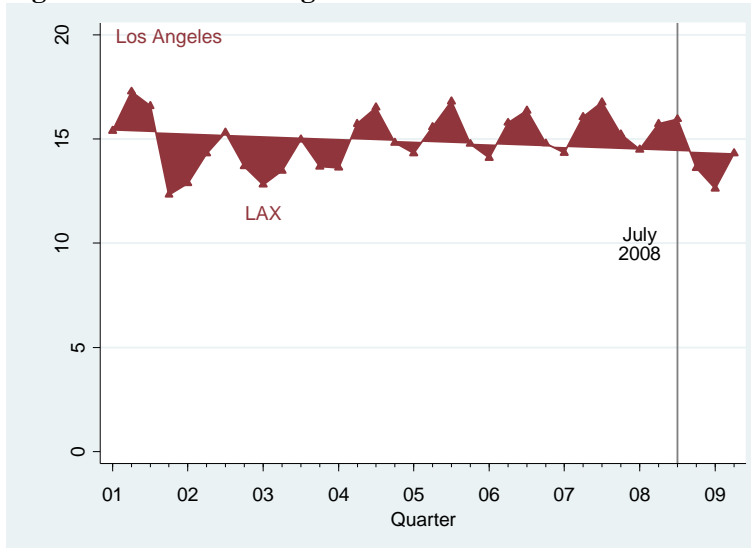
The costs of the downturn have, nonetheless, cut deeply across the Los Angeles region. During the boom times of 2006, the two ports had enough work for more than 1,000 laborers for every day shift. By February 2009, the ports were employing only 660. The Inland Empire, a major hub for goods imported through the ports of Los Angeles and Long Beach, saw its workforce cut by more than 80,000 jobs. Citing the decline at the ports, credit rating agencies also threatened to cut their rating on \$2 billion in bonds from the Alameda Corridor Transportation Authority. In the first quarter of 2009, the authority saw its revenues fall 21 percent and it warned that both ports would need to help pay for its operations without a significant rebound in trade.²¹

For the region's airports, dark clouds were forming before the financial crisis hit. Still recovering from the attacks of September 11, 2001, airport operators were under growing strain in mid-2008, as domestic airlines cut capacity by as much as 20 percent in the face of historically high fuel costs. Usually resilient, international carriers soon followed suit. In addition, billions of dollars of investment by other cities were coming online and Los Angeles faced serious new competition from airports in San Francisco, Las Vegas, Houston, and Miami. Finally, German-owned shipping company DHL announced in November 2008 that it would slash U.S. operations in the face of stiff competition and mounting financial losses and would shut its West Coast hub in Riverside. Just two months earlier, the company had announced that it would launch a new international route out of LAX.²²

Figures 10 and 11, which plot the passenger and cargo volumes at LAX, note the sharp declines that followed the financial crisis in late summer 2008. In the last quarter of 2008 and the first quarter of 2009, the number of passengers passing through the airport dropped 20 percent, though LAX has seen a partial rebound in recent months. Similarly, air freight has dropped more than 25 percent. Things have been even grimmer for Ontario International airport. Between July

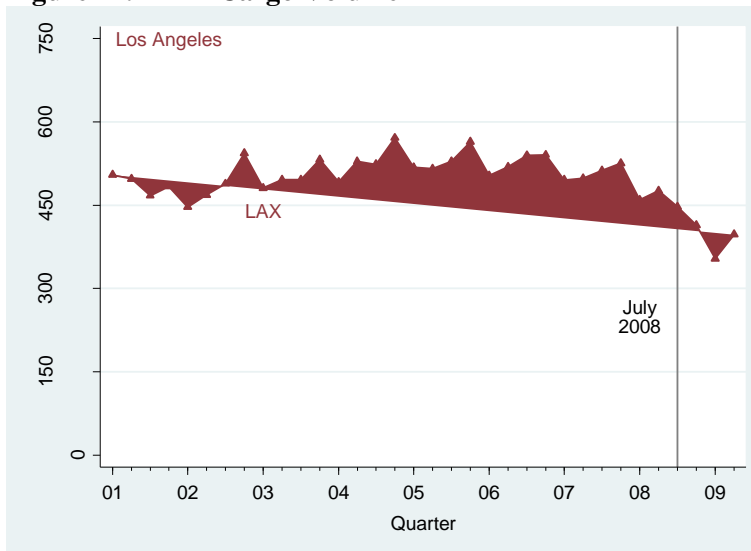
2008 and 2009, passenger traffic at the airport dropped more than 25 percent, one of the largest declines among mid-size airports in the continental United States. In late 2008, the airport's passenger traffic stood at the same levels they had nearly two decades earlier.²³

Figure 10. LAX Passenger Volume



Source: Los Angeles World Airports

Figure 11. LAX Cargo Volume



Source: Los Angeles World Airports

The impact of the economic downturn has been exacerbated by the fiscal crisis in California, which has put funding for infrastructure upgrades at the San Pedro Bay ports and highway improvements across the region at risk. Of especial concern to port and rail officials is the \$2 billion Trade Corridors Improvement Fund (TCIF) intended to improve infrastructure along federally designated "Trade Corridors of National Significance." The TCIF program was passed as part of Proposition 1B in 2006, a \$19.9 billion transportation bond intended as a down payment on reversing more than a decade of underfunding by state government. L.A.'s port and rail authorities had

successfully navigated a number of infrastructure projects through the competitive TCIF application process by 2008. In January 2009, however, the California Transportation Commission suspended disbursement of transportation funds while the state legislature and governor resolved a stalemate over the budget.

Fiscal instability at the state level has exacerbated the difficulties of the San Pedro Bay ports and the Alameda Corridor rail authorities to raise money to pay for needed infrastructure upgrades. Prior to the recent downturn, L.A.'s infrastructure agencies were moving forward on an ambitious portfolio of projects. Such projects include repairs to the aging Gerald Desmond Bridge, over which 10 percent of the nation's containerized trade travels, elimination of choke points along the Alameda Corridor East, and an expressway to speed trucks and trains traveling between the ports and downtown railyards. These and other projects will be necessary to cope with the anticipated growth of international trade traffic over the next 20 years. Prior to the recession, analysts also were forecasting a doubling of the region's air traffic by 2030.²⁴ Even with the downturn, container traffic at the Ports of San Pedro Bay is expected to grow to 42.5 million TEUs by 2030.²⁵ In addition to their economic impact, port and rail officials are counting on these projects to remove trucks from the roads and lower emissions, helping the region meet its environmental responsibilities.

Finally, L.A.'s port complex faces fiercer competition from other ports. Of particular concern for POLA and POLB officials has been Port of Prince Rupert, north of Vancouver, which is closer to Asian markets (by three days) and has the deepest port on the West Coast. The Prince Rupert Port Authority has joined forces with the Canadian National Railway, the province of British Columbia, and the Government of Canada to expand its marine terminals and rail links into the United States, with the goal of handling four million TEUs by 2015. This year, the Canadian government launched a \$7 million marketing campaign designed to divert Asian imports from West Coast ports to Prince Rupert.²⁶ In addition, West Coast ports, like POLA and POLB will soon face increasing competition from similar facilities in the eastern U.S. By 2014, the widening of the Panama Canal will make allow the largest cargo ships bound from Asia to bypass West Coast ports entirely. Increased competition will further undermine the ability of San Pedro Bay ports to raise money to pay for facility upgrades. Increased container fees at the San Pedro Bay ports, which would pay the bulk of the costs for new facilities, could increase diversion to competitor ports.

(2) Greening L.A.: By the early 2000s, POLA and POLB were playing defense with respect to environmental groups and local elected officials representing communities impacted by port operations....²⁷

(3) Security Challenges: In the wake of September 11, 2001, L.A. port and airport officials have undergone extensive review and modification of security procedures. In 2007, POLA adopted a strategic plan for safety and security designed to enhance public safety at the port and in nearby communities, improve the ability to prevent or detect actions intended to disrupt port operations or the flow of cargo and bolster emergency preparedness procedures for responding to security events and mitigating their impact. Nineteen initiatives were adopted, including the establishment of a new police substation in nearby Wilmington, addition of two 24-hour vessels to patrol the harbor, and creation of a vehicle and cargo inspection team. Cameras have been installed at critical locations and port officials have established controlled access areas where unauthorized personnel are not permitted to enter.²⁸

POLB officials have similarly beefed up security procedures in recent years. In 2004, for example, Harbor Commissioners agreed to spend \$3 million for radiation detectors at every port gate. The 18 radiation portals scan all containers leaving the port by truck or train.²⁹ POLB voluntarily joined the Customs-Trade Partnership Against Terrorism (C-TPAT) program in 2003. C-TPAT is a voluntary partnership among more than 7,400 public and private entities involved in international trade designed to enhance the security of the global supply chain.³⁰ In February 2009, POLB opened a \$21 million command-and-control center to house its security division as well as units from the

Long Beach Police Department, U.S. Coast Guard, U.S. Customs and Border Protection and Marine Exchange.³¹

In addition to adopting new plans and procedures, the San Pedro Bay Ports have implemented a host of federal security procedures adopted after 2001. POLA and POLB are currently cooperating with the U.S. Coast Guard and Transportation Security Administration to implement the Transportation Worker Identification Credential (TWIC) program, a part of the Maritime Transportation Security Act of 2002. Under the TWIC program, individuals requiring recurring access to secure areas of a maritime U.S. facility must have biometric identification cards that include a photo and fingerprints. In order to obtain an ID card, workers must be legal residents and pass a background check. Enrollment for the program began in late 2007; by April 2008, more than 15,000 workers had signed up to receive an ID card. Port officials estimate, however, that more than 100,000 local truck drivers, longshore workers, port employees and others would need cards to gain access to port facilities.³²

The TWIC program has posed challenges for port officials in L.A. – and in the New York area as well. One has been the sheer cost of implementation, which the ports have had to absorb. Also, TWIC requires local drivers and longshore workers to demonstrate that they are U.S. citizens or have legal “green card” status. Port officials were worried that a large share of truck drivers serving the ports was undocumented and that the new requirements would lead to a severe driver shortage; but thus far, the driver shortage has not occurred.

Security concerns at LAWA became paramount after September 11, 2001. Less than two weeks after the attacks, L.A. Mayor Hahn directed airport officials to refocus the LAX Master Plan from expansion to better security. The revised plan advocated a massive redesign to reduce the airport’s exposure to terrorist attacks. In response to criticism that the plan would result in little enhanced security at great cost, LAWA commissioned a RAND study. The study, published in 2004, recommended faster check-in, thinning crowds in unsecured areas, vehicle check points able to screen for explosives and heightened screening of airport personnel.

More recently, LAWA officials have stepped up efforts to improve security at LAX and Ontario airports. In 2008, Mayor Villaraigosa engineered an agreement between LAX and Israel’s Ben-Gurion International Airport to enhance security plans at the former and reduce the threat of a successful attack. Israeli officials were scheduled to conduct a peer review analysis of LAX security plans in late 2008, and provide analysis and recommendations for improving procedures at the airport.³³ In February 2009, LAWA officials announced the opening of the nation’s first independent air cargo screening facility, Mercury Air Cargo, which participated in TSA’s Certified Air Cargo Screening Program. Under federal guidelines adopted in the Implementing the 9/11 Commission Recommendations Act of 2007, the air cargo industry must screen 50 percent of cargo on wide-body passenger aircraft at levels commensurate with passenger checked baggage by February 2009. By August 2010, the industry will have to screen 100 percent of air cargo.

GOVERNMENT AGENCIES THAT TRY TO OPERATE AS CORPORATIONS: THE EXPERIENCE OF NEW YORK AND LOS ANGELES

As offspring of the Progressive Era, the agencies we discuss in this paper were designed to be insulated from political pressures that often undermine coherent public action—especially when long-term planning and sustained capital investment are involved. The strategies of insulation were in part different. In the New York region, creating a bi-state agency meant that no elected official had the ability to control its actions without agreement from across state lines; as a result, skilled leaders at the Port Authority – we call them entrepreneurs – could take initiatives and implement plans without close control from above. In Los Angeles, the port and airport agencies were part of municipal governments, but they were created as municipal *corporations* – and were expected to develop port and airport facilities without tight control by elected officials. In addition, because they operated along the coastline, state agencies (the State Lands Commission and, later, the Coastal Commission)

monitored their activities and could protect some of their actions from tight local governmental controls.

The strategies in both regions were also in part similar. All the NY and L.A. area agencies we discuss were constructed with multi-headed commissions at the top; the commissioners might at times interfere with staff preferences, but they have provided some insulation between the professional staffs and elected officials. Moreover, all the agencies have had the capacity to issue bonds, and to use the proceeds from these bonds to expand their operations. Thus they have been partly independent from the budget-review process that state and local governments use to control the operations of line agencies. However, in the PA's aviation, port, and economic-development areas, professional staff have given close attention to the "bottom line," lest their plans create too great a drag on the total enterprise, reducing funds for maintenance of bridges and other facilities – and for allocating funds to support allied governmental efforts in such areas as highway improvement.

One important result of this distinctive managerial environment is that these agencies have been able to attract and hold leaders and staff members at all levels who are interested in large capital projects and long-range planning, and who like to see results measured in specific, often quantitative terms. To some extent, staff motivation is also linked to a "profit-seeking" goal: projects should be designed to maximize net revenue, which means that costs should be kept under control and the needs of the customer should be given significant weight. Armed with these objectives, plus the partial insulation provided by the agencies' design, the staffs can use – and have used – managerial strategies not unlike those of a private corporation. Specific goals are set, measurable steps are identified, and progress is monitored. At the same time, agency leaders look for new directions and new projects that might help in meeting the agency's overall goals. The development of containerization, led by the Port Authority and its West Coast allies, illustrates this aspect; at the time, investment in special marine facilities for these "boxes" was viewed as very risky, and so the term "entrepreneur" seems fitting for those who led that innovation. The planning, financing and construction of the Alameda Corridor also illustrate the concrete and systematic ways in which these agencies often operate entrepreneurially.

The summary above captures what these agencies aspire to do, and what they have often been able to do. However, as the text of the paper shows, insulation is frequently breached – sometimes for dubious reasons (as when patronage appointees occupy important staff positions), and often for defensible reasons (as when the mayor of L.A. appoints commissioners who will alter the direction of the Port of Los Angeles, or when the governor of New Jersey demands equal treatment in the PA's investment choices.) These elements of traditional American democracy can be frustrating to those who wish the port and airport agencies could be more insulated – operated in ways more like a private corporation – but even with the occasional frustration, the staffs of these "semi-corporate" bodies press ahead. It is likely, for example, that among the leaders in meeting more stringent environmental goals in the next decade will be found the Port Authority of NY&NJ and the several port and airport agencies in the Los Angeles region.

¹ This paper is drawn from a longer essay, "Global Gateways and Economic Development," by J. W. Doig, Steven P. Erie and Scott A. MacKenzie (hereafter, "Global Gateways," 2009). Our thanks, for their [assistance in gathering information for this as well as the joint paper, and for their helpful](#) comments on an earlier version of the joint paper, to Lillian Borbone, David Halle, Robert James, Stephen Marshall, [Maureen McManus, Judy Rife, and Amanda Valdez](#). This essay omits some materials found in "Global Gateways, as indicated in endnotes below, because of space limits set for Forum-conference papers.

² The two regions have additional gateway facilities: Newark and LaGuardia airports in New York and Ontario International Airport in Los Angeles.

³ In 1930, the number of commissioners was expanded to six from each state; and in 1972 the agency was renamed the Port Authority of New York and New Jersey, to emphasize the equal partnership between the two states. The agency's jurisdiction extended across all of New York City and into Westchester County, and on

the western side of the Hudson it included Newark and Jersey City as well as large portions of the surrounding counties.

⁴ At the time, about 50 percent of all international trade flowed through marine terminals in New York City. A dozen rail lines brought manufactured and farm goods from the hinterland, and at the New Jersey shore they had to be offloaded to barges, which floated them across the Hudson and Upper New York Bay to New York piers; the time and cost burdens for this cross-harbor trip were considerable. An important motivation in creating the Port Authority was to have an agency that might negotiate with the railroads and develop a plan to send the goods under the Hudson in a set of tunnels – thus speeding them to the waiting piers and inland warehouses. The tunnels would be especially important in the winter, when ice floes at times halted barge traffic across the Hudson and New York Bay.

⁵ The GW was completed in 1931, and the first tube of the Lincoln Tunnel in 1937; two more tubes were added later. The Holland Tunnel, built by another bi-state agency, was completed in 1927 and transferred to the Port Authority in 1930-31. The three bridges to Staten Island from the New Jersey shore, finished in 1927-31, were the Goethals, Outerbridge, and Bayonne.

⁶ J. W. Doig, Empire on the Hudson: Entrepreneurial Vision and Political Power at the Port of New York Authority (New York: Columbia University Press, 2001), chapter 12.

⁷ J.W. Doig, Metropolitan Transportation Politics and the New York Region (New York: Columbia University Press, 1966), chapter 9; Louise Nelson Dyble, “Reconstructing Transportation, Technology and Culture, 50 (June 2009), 237-38.

⁸ The story of L.A.’s and Long Beach’s port development from the 1870s through early 1970s is told in “Global Gateways,” 2009, 14-16 (see note 1 above).

⁹ Steven P. Erie, Globalizing L.A.: Trade, Infrastructure, and Regional Development (Stanford, CA: Stanford University Press, 2004), chapters 4-5; Marc Levinson, The Box (Princeton: Princeton University Press, 2006) chapters 12-13.

¹⁰ Twenty-foot equivalent units. The common length of on-ship containers has been 20 feet. Now, however, some containers are 40 feet long, or 2 TEUs.

¹¹ Erie, 2004, 141; Levinson, 2006, 273.

¹² Erie, 2004, chapter 4.

¹³ Paul David Friedman, Fear of Flying: The Development of Los Angeles International Airport and the Rise of Public Protest over Jet Noise (M.A. Thesis, University of California, Santa Barbara, 1978).

¹⁴ Erie, 2004, chapter 7.

¹⁵ In the 1980s and 1990s, New Jersey officials offered tax concessions to businesses willing to move to New Jersey, a strategy that gained them several firms and a measure of hostility from New York’s governor and mayor. The successful efforts to persuade the New York Giants and the Jets to abandon New York to play in the Meadowlands rubbed salt in the interstate wound.

¹⁶ M.N. Danielson and J.W. Doig, New York: The Politics of Urban Regional Development (Berkeley: University of California Press, 1982), 318-321.

¹⁷ Erie, 2004, chapters 5 and 7.

¹⁸ PANYNJ, 2008 Annual Report, p. 14.

¹⁹ Los Angeles County Economic Development Corporation and the Kyser Center for Economic Research, International Trade Trends and Impacts: The Southern California Region, May 2009.

²⁰ Ronald D. White, “Port Cargo Levels are Sinking Fast,” *Los Angeles Times*, March 2, 2009, p. C1; Ronald D. White, “Shipping Industry in Deep Water,” *Los Angeles Times*, July 8, 2009, p. B1. For national container port trends, see U.S. Department of Transportation, Research and Innovative Technology Administration (RITA), America’s Container Ports: Freight Hubs That Connect Our Nation to Global Markets (Washington, D.C.: USDOT, June 2009).

²¹ Alana Semuels, “More Pain Forecast for California,” *Los Angeles Times*, July 22, 2009, p. B1; Ronald D. White, “Port Cargo Levels are Sinking Fast,” *Los Angeles Times*, March 2, 2009, p. C1; Ronald D. White, “Rail Route Takes a Hit,” *Los Angeles Times*, May 15, 2009, p. B1.

²² Micheline Maynard, “Airports Grow Apace, but the Timing Seems Off,” *New York Times*, Oct. 30, 2008, p. A21; David Pierson, “LAX Economy Loses Altitude,” *Los Angeles Times*, April 15, 2009, p. B1; Dan Weikel, “LAX Suffers in Weak Economy,” *Los Angeles Times*, Jan. 21, 2009, p. B4.

²³ Dan Weikel and Peter Pae, “A Dizzying Descent at Airport,” *Los Angeles Times*, Aug. 6, 2008, p. B1.

²⁴ Southern California Association of Governments, 2004 Regional Transportation Plan (Los Angeles: SCAG, 2004).

²⁵ Los Angeles County Economic Development Corporation, *Southern California Consensus Group Projects TCIF Application Economic Analysis* (Los Angeles: LAEDC, 2008).

²⁶ Art Marroquin, "U.S. and Canadian ports gear up for trade war," *Daily Breeze*, Oct. 23, 2009.

²⁷ For information on the "greening" of the L.A. and Long Beach ports, see "Global Gateways" (note 1 above), 39-44.

²⁸ Port of Los Angeles, Port of Los Angeles Strategic Plan for Safety and Security, April 2007.

²⁹ "Long Beach OKs port security projects," *Journal of Commerce*, April 6, 2004.

³⁰ U.S. Customs and Border Protection, Securing the Global Supply Chain: Customs-Trade Partnership Against Terrorism (C-TPAT) Strategic Plan, 2007.

³¹ Port of Long Beach, Strategic Plan 2009 Update, 2009.

³² Art Marroquin, "I.D. Plan for Ports Dragging," *Daily News of Los Angeles*, April 6, 2008.

³³ Richard Boudreaux, "Top airport security expert in Israel to inspect LAX anti-terror measures," *Los Angeles Times*, June 14, 2008.