

Witness an online magazine



International Shipping:  
Globalization In Crisis

Photographs by Les Stone  
Text by James Castonguay, Ph.D.

12 M  
8  
6  
4  
2  
11 M  
8  
6  
4  
2  
10 M  
8  
6  
4



## International Shipping: Globalization In Crisis

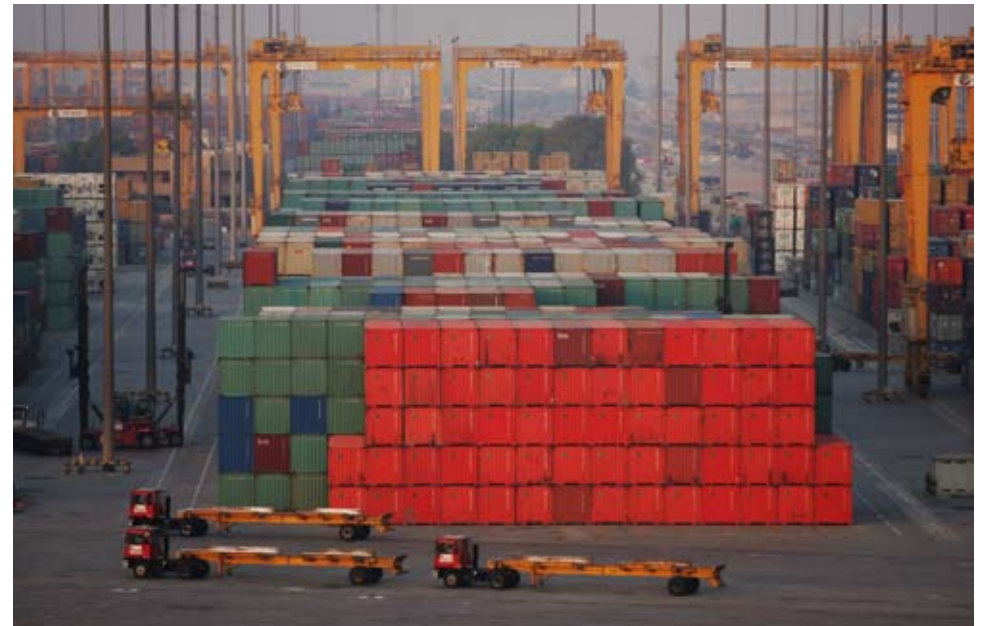
Roughly ninety percent of the world's goods are transported by sea with over seventy percent as containerized cargo. Although boxes and containers had long been used to transport goods using horse-drawn carts, trucks, trains, and ships, the process remained inefficient through the Second World War due to the labor required to load and unload containers as they were transferred from one mode of transportation to another. This process was streamlined in the 1950s when American entrepreneur Malcolm McLean's Sea-Land Service and other companies developed an intermodal system using standardized containers that facilitated efficient transfer between trucks, ships and trains through specialized terminals. From Sea-Land's first international transport of 236 containers in 1966 to the development of enormous container ships that routinely carry over 9,000 containers, international container shipping has "made the world smaller and the world economy bigger," says economist Marc Levinson.



A docked container ship in the port of Hong Kong.



Stacked containers await moving at the port in Pusan, Korea.



Port operations in Jebel Ali Port of Dubai.





Port workers relax as a loaded ship enters the Jebel Ali Port of Dubai. This is one of the largest container terminals in the world. The port is a 24 hour, 7 days a week operation. It uses the largest cranes in the world to load and unload ships.

Over 4500 container ships used 18 million containers to transport over 400 million twenty-foot-equivalent container units (TEUs) in trade cargo through world ports in 2007. Predictions that volume would reach 500 million TEUs in 2008 fell short as a result of late year downturns. Claims that 1 billion TEUs will be traded by 2020 will also have to be significantly revised as global demand for commodities continue its downward spiral.

Roughly 90 percent of dry, non-bulk manufactured goods are shipped in ocean containers, including machine parts, electronics, paper, tires, footwear, scrap metal, apparel, auto parts, toys, food, beverages, chemicals, textiles, furniture, and appliances. According to data compiled by the *Journal of Commerce's* Port Import/Export Reporting Service (PIERS), Wal-Mart, Target, Home Depot and Sears were the largest U.S. importers in 2007. Overall, the top U.S. importers include other retailers and recognizable companies like Chiquita, General Electric, Heineken USA, Philips Electronics, Red Bull, Whirlpool, Canon, and Nike, which distribute their products to U.S. retailers.

The largest U.S. exporter in 2007 was American Chung Nam Inc., a Chinese company that exports waste paper to its sister company back in China. According to Richard McCormack, editor of *Manufacturing & Technology News*, this waste paper “is re-manufactured into cardboard to pack valuable manufactured goods for export back to the United States.” Over half of the top 20 exporters from the U.S. were shipping waste paper and scrap metal and, with the exception of Proctor & Gable, all of the top 20 companies exporting from the U.S. are foreign-owned. “Combined with the 20 scrap paper exporters,” McCormack writes, “more than two-thirds of America’s largest 100 exporters via ocean container sold either junk, bulk chemicals or food commodities, exports typical of most Third-World nations.”



Anything and everything you can imagine is shipped on a given day.







It is estimated that in 2007 Wal-Mart alone imported more than one container of cargo from China into the U.S. every minute, further illustrating the shift in manufacturing from West to East.

Port operations managers must keep the tally of containers and all other cargo moving on and off every ship.







Workers discuss loading procedures at the Port in Pusan, Korea.



Crane workers have a safety meeting before work every morning. Pusan, Korea

It is estimated that over 1.2 million people are directly employed by the shipping industry as both seafarers and port workers. If one extends this to include logistics and supply chain management and other shipping related businesses, the work force reaches the tens of millions. For instance, the port of Los Angeles Web site lists 1,073 authorized positions, but also takes credit for 1.1 million jobs in California and 3.3 million across the U.S., and economists credit maritime trade for over 3 million jobs in EU member countries.



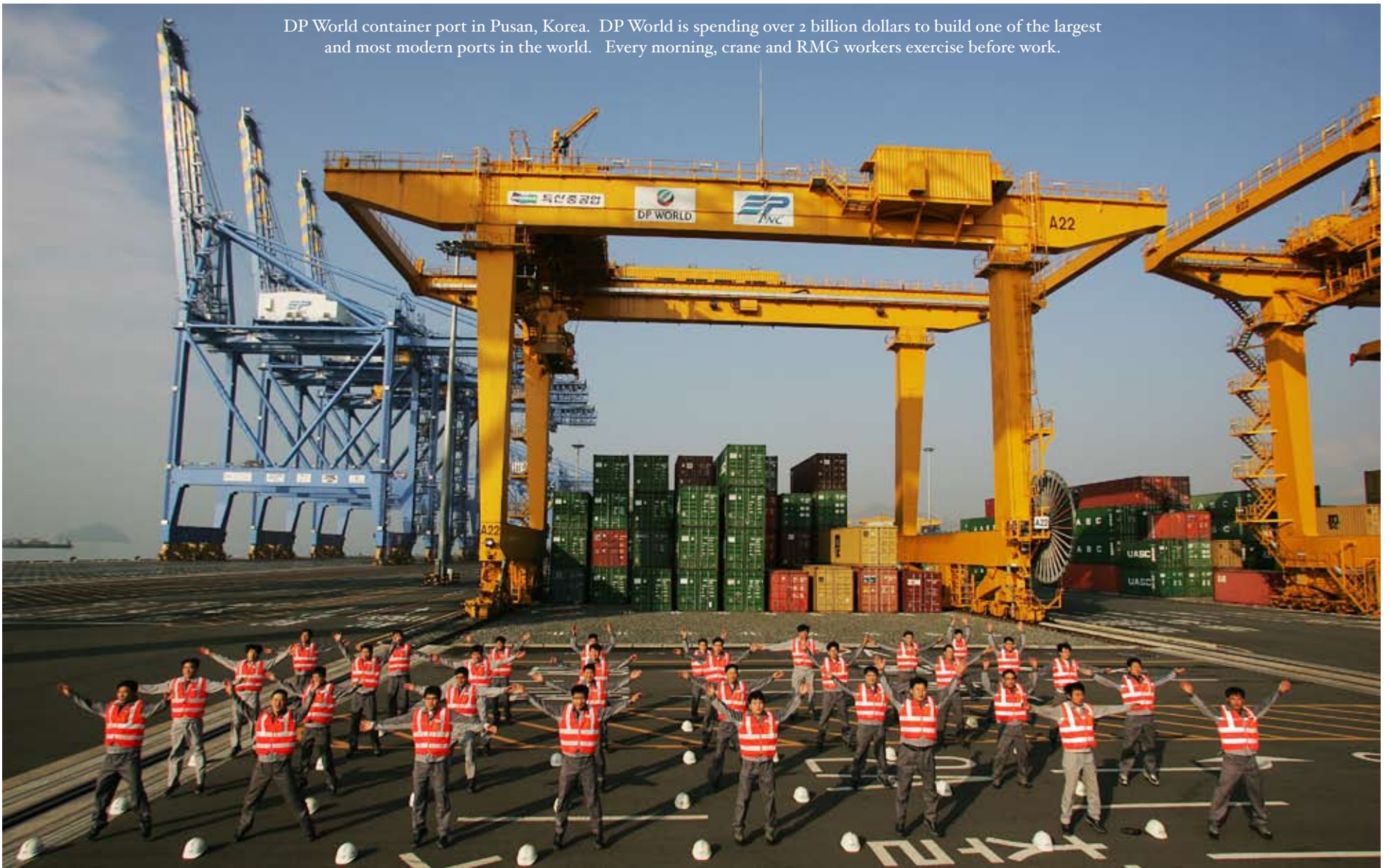
Worker inspects cargo. Port in Hong Kong.



Dock workers at the port of Hong Kong.



DP World container port in Pusan, Korea. DP World is spending over 2 billion dollars to build one of the largest and most modern ports in the world. Every morning, crane and RMG workers exercise before work.



Within this overall economic scenario, some ports and shipping companies will fare better than others. Dubai Ports (DP) World, for instance, is one of a handful of maritime companies still thriving in the current economic crisis. The world's fourth largest port operator, DP World has benefited from cargo formerly destined for North America being rerouted into its ports. Asia to Europe and Asia to North America trade routes will continue to be hit the hardest while Asia to Middle East routes will most likely continue to experience positive growth, according to industry forecasts. DP World and its government-owned parent company, Dubai World, are aggressively targeting Russian ports and other developing markets to take full advantage of this global opportunity to "buy low." Dubai is also home to the seventh busiest port in the world and, according to a leading maritime consulting firm, will soon develop into one the world's most competitive maritime clusters.





DP World, one of the largest companies in the industry, maintains a port in Hong Kong. The port consists of two terminals, the ACT and ATL, which has the largest logistics center in the world.



## THE ENVIRONMENTAL IMPACT

Before the 2008 financial collapse in the U.S., one of the biggest challenges facing the maritime shipping industry was the increased scrutiny and concern over the effects of sea traffic on the environment. Despite the container shipping industry's emphasis on the environmentally friendly efficiency of their vessels when compared to air freight, the reality is that sea trade contributes almost twice as much to the world's overall carbon footprint than air traffic. And although the 1997 Kyoto Protocol called for reducing greenhouse gas emissions from international shipping, over a decade later, relatively little has been done within any sector of the shipping industry to mitigate international sea trade's contribution to the carbon footprint and sulfur cap.

This neglect has been made more conspicuous by recent studies—including an influential report released by the International Maritime Organization (IMO) (the UN agency that establishes guidelines and regulations for the shipping industry)—which determined that sea traffic accounts for 4.5 to 6 percent of the total CO<sub>2</sub> emissions annually (roughly 1.2 billion tons) as well as 20 percent of sulphur dioxide and 30 percent of nitrogen oxides pollution. In addition, researchers at the University of Delaware have recently estimated that the airborne fine particles produced by ships are responsible for over 60,000 premature deaths each year in coastal areas by entering the blood stream and affecting the heart and lungs. Other studies have predicted that if the international shipping industry is left unchecked and unregulated, these figures would continue to increase by at least 4 percent each year, doubling by 2020 and tripling by 2030 under “business as usual.”

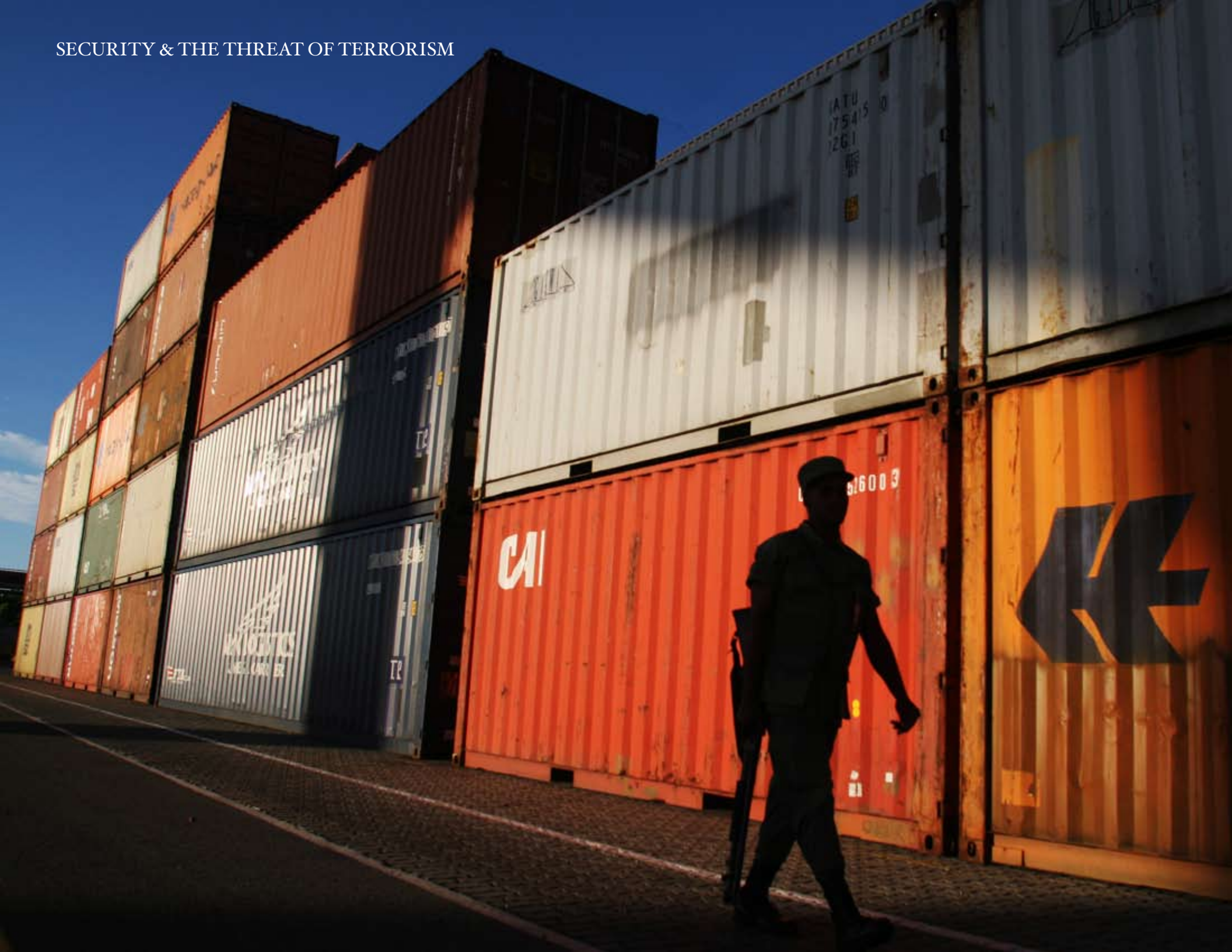
In response to these studies and increased international pressure from various environmental groups and governmental organizations, the July 2008 C40 World Port Climate Conference in Rotterdam (sponsored by the Clinton Climate Initiative and attended by representatives from 55 ports) produced a World Ports Climate Declaration to reduce CO<sub>2</sub> emissions from ocean-going shipping and from port operations. The IMO's Marpol Annex (short for marine pollution) has recently been amended to approve a progressive reduction in ships' contributions to the sulfur cap and carbon footprint by setting strict emission limits on particulate matter, sulfur oxides, and nitrogen beginning in 2011 with reduction benchmarks set through 2020.

Though there are critics, the MARPOL amendments have been widely ratified by the 168 member countries of the IMO, including the U.S, which signed into law the Maritime Pollution Protection Act of 2008, and are supported by the major organizations within the international shipping community. In a public relations document commemorating its 60th anniversary the IMO referred to a “prospective deal on air emissions, whose adoption by IMO in late 2008 will be another of its finest moments.” It claimed “the industry is also confident that IMO will manage to deliver, by 2009, an international agreement for reducing shipping's CO<sub>2</sub> emissions, to ensure shipping plays its part in addressing the pressing challenge of reducing global carbon emissions.”

It is important to note that these promises from the shipping industry to regulate itself in response to increased social and political pressure were all made before the 2008 global financial crisis. The implementation of green initiatives will come at a significant cost to an industry that even during a period of consistent growth in world trade had long resisted these environmentally friendlier changes on fiscal grounds. Whether or not the shipping industry (and regional authorities) will deliver on these rhetorical commitments during a global recession remains to be seen, but the arguments for economic infeasibility will only gain momentum during an economic downturn.



SECURITY & THE THREAT OF TERRORISM







Security forces at the Jebel Ali Port of Dubai.

In addition to the environment, port and sea route security initiatives have become a serious social, political, and economic concern for the shipping industry, especially since the 2001 terrorist attacks in the U.S. and high profile media coverage of piracy in the Gulf of Aden. U.S. port security became a prominent national and international political issue for a brief period in March 2006 after Dubai Ports World (DP World) acquired UK-based shipping giant Peninsular and Oriental Steam Navigation Company for \$7 billion, which had been operating several U.S. port facilities, including New York and New Jersey.

Although the transfer of ownership of the U.S. port operations to DP World was approved by the Department of Homeland Security and other required agencies, it soon received militant opposition from U.S. politicians from both sides of the aisle. Despite President Bush's threats to use his first ever veto to reinstate the transaction if necessary, bipartisan opposition to the transaction led to DP World selling its U.S. acquisitions to the American International Group (AIG), which would later make headlines as a major benefactor of the 2008 economic bailout from the U.S. government.

It could be argued that the bipartisan political protests amounted to the business equivalent of racial profiling and that the Bush Administration became a victim of its own negative propaganda about the Arab world that led some Americans and U.S. politicians to assume that all Arab nations are sympathetic to terrorist enemies of the United States. To place the DP World controversy in a broader



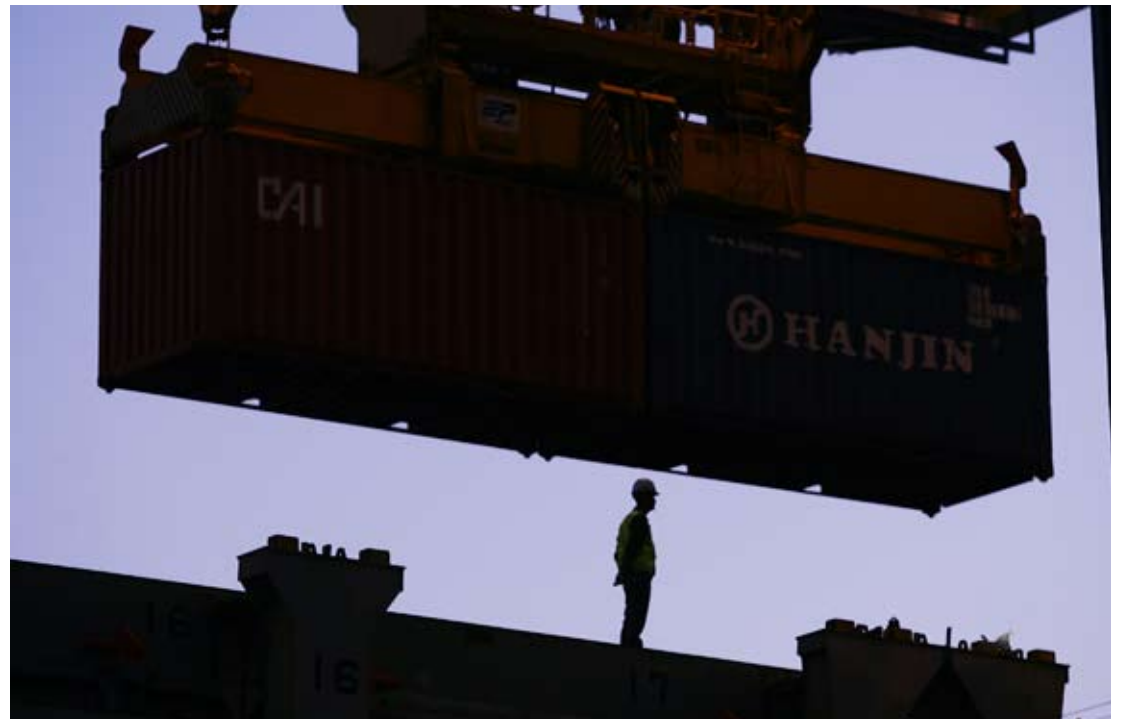
context, it is important to recognize that even after the sale of its U.S. port operations, DP World still controls more world ports than any other company at over 40, including five Australian and nine European container terminals. In addition, although the Port of Hong Kong has demonstrated the logistical feasibility of scanning and imaging every container, the cost to implement this system in the U.S. (estimated at roughly one half of one percent increase per container) has outweighed the political will to act due in part to successful lobbying from U.S. shipping interests against increased security.

In addition to issues of port security, there were also over 100 attacks on vessels off the Somali coast in the Gulf of Aden in 2008, including the hijacking of a Ukrainian ship transporting military equipment, and the Saudi oil supertanker *Sirius Star*. The previously “business-like” nature of ransom payments to pirates has begun to shift to more violent engagements as the shipping industry and stakeholding countries have increased their naval presence and begun to arm crews and hire private security outfits. In response to resulting increases in insurance costs and demands by crew members to receive hazard pay, the world’s third largest container carrier CMA CGM introduced a surcharge of \$23 per TEU for cargo being transported through this region.

The 2004 International Ship and Port Facility Security Code (ISPS) drafted by the International Maritime Organization (IMO) required port facilities to conduct a security assessment. These findings resulted in new security gates, fences, marine barriers, and the installation of new lighting, surveillance and screening equipment at many ports. In addition to the upgrades to infrastructure and technology, new security vessels, training, and personnel have been required as a result of ongoing vulnerability assessments. According to a 2007 United Nations study, the implementation of ISPS had already cost port facilities between \$1.1 and \$2.3 billion and will continue to cost \$400 – \$900 million annually.



A brand new security center in Hong Kong uses 180 cameras covering almost every part of the yard and buildings.



## THE BUSINESS OF TRADE

For over 140 years, the global shipping industry was allowed to fix prices through special antitrust exemptions on the theoretical grounds that market competition would lead to unreliable transport and could give an unfair advantage to carriers from countries that receive subsidies. To facilitate the process of setting transport prices and intermodal rates, major shipping lines formed associations or “conferences.”

In the 1970s a network of global supply chains developed in which products and parts were produced outside the U.S. in order to lower labor costs and delivered on demand. The goal was to lower inventories and prices for U.S. consumers. As a result, the container shipping industry grew exponentially in its various sectors, including ship builders, shipping lines, specialized container terminals and ports, and the development of information technology and companies to manage logistics and integrate these supply chains.

In the U.S., the 1984 Shipping Act and the 1998 Ocean Shipping Reform Act partially deregulated the shipping industry by allowing shippers and carriers to negotiate prices confidentially and independently from conferences and other carriers. The result of these “pro-market” changes has marked a shift from traditional conferences to the formation of consolidated cartels or oligopolies through acquisitions and mergers. These actions resulted in ten shipping companies controlling over sixty percent of the world’s ocean trade market.

Although the U.S. is the largest importer of goods and world’s third largest exporter, none of the major container shipping lines, port operations, or ship building companies are owned by U.S. companies. The world’s ten largest container shipping companies are: A.P. Moller-Maersk Group (Denmark), Mediterranean Shipping Company (Switzerland), CMA CGM (France), Evergreen Marine Corporation (Taiwan), Hapag-Lloyd (Germany), China Shipping Container Lines, American President Lines (Singapore), Hanjin-Senator (S. Korea/Germany), COSCO (China), and NYK (Japan).

The global trend toward liberalizing the shipping market comes at a time of extreme crisis and unprecedented turmoil for the international shipping industry. Even before U.S. and global economic crisis intensified in late 2008, industry surveys, trade publications, and mainstream news accounts were already suggesting that the golden age of international shipping—and globalization as we knew it—was over. Economists and industry analysts claimed that the logistic efficiency of intermodalism and networked information systems has reached a tipping point as transportation infrastructures in North America and Europe could no longer accommodate the steady increase in volume of maritime trade with China. In addition, during the summer of 2008 as oil prices surged rising fuel costs and concomitant surcharges had “started to crimp globalization,” according to the New York Times. Writing in the magazine *Foreign Affairs*, economist Marc Levinson went as far as to suggest that the “globalization process [was] beginning to shift into reverse” due to “rising transportation costs and diminishing reliability, both of which are causing long-distance supply chains to lose appeal.”

## THE FUTURE OF GLOBALIZATION

All of these economic and political challenges, from port congestion, fluctuating fuel costs, security regulations to green initiatives, existed before the 2008 financial meltdown and the global recession that followed in its wake. To be sure, economic warning signs existed before September 2008, yet economists and industry analysts were predicting slower growth not a sudden decrease in international trade and cargo transportation. The economic slowdown in China had some analysts questioning whether or not the industry was striking the correct balance between anticipated global economic growth and demand for commodities with the number of ships being built to accommodate this growth through continued economies of scale.



Compared to these earlier concerns, the intensified economic crisis has been nothing short of disastrous for the major shipping liners as demand for product has dropped. Shortly after the U.S. banking crisis, the Baltic Exchange Sea Freight Index, the leading indicator of major shipping price levels, suffered its biggest drop in history causing shipping lines to idle ships and cancel orders with ship builders. Perhaps the biggest catalyst for the drastic decline in maritime trade, however, has been the unanticipated lack of access to credit caused by instability in the global financing and banking system. A high percentage of traded goods are shipped only after a letter of credit for the value of the cargo is received from the purchaser's bank. In January 2009, a leading shipping news outlet, *Lloyds List*, reported that "world trade continues to be crippled by the letters of credit famine . . . [that] has brought severe disruption to the global shipping trades."

According to the *Journal of Commerce* the number of idle container ships rose from 165 in December 2008 to 210 in January as shipping lines continued to suspend services on major trading lanes and smaller "feeder" routes in order to mitigate profit losses. In response to what is being called the biggest crisis in the history of container shipping, analysts are predicting even more consolidation within all sectors of the shipping industry. Although the major carriers continue to argue that immunity from antitrust law is essential to the health on international trade to guarantee reliability and stability, the momentum and bargaining power is currently with the shippers who have successfully lobbied for increased market competition. The repeal of antitrust exemptions has thus created a perfect storm for the shipping industry as carriers can no longer collude to fix prices as they did under the conference system which will most likely lead to an even greater increase in the concentration of ownership and economies of scale.



Jebel Ali Port of Dubai.

Port in Hong Kong. A Yang Ming ship leaves terminal at dawn.





Although the previous concern for rising fuel prices within the shipping industry has been alleviated in the short term as oil prices dropped below \$40 a barrel, the overall lack of demand for cargo transport combined with the credit crisis has also relegated these industry anxieties to the background. And despite the drop in price for industrial commodities like steel, nobody is placing orders. According to some, we could soon witness a paradigm shift from the global to a local “turn within” that leads to a dangerous form of political isolationism and economic protectionism. Others see this potential development as a positive economic opportunity that could reinvigorate domestic manufacturing jobs in the United States. Regardless of the broader economic shifts, if and when the markets begin to stabilize and international credit begins to flow, the pre-existing challenges will still be waiting for the international shipping industry.







A container ship begins to navigate its position for a nighttime docking at Jebel Ali in Dubai.

This project is a production of

**VISION PROJECT Inc.**

Vision Project is an organization dedicated to the development of documentary photography and educational programming related to still photography and multimedia.

The goal of Vision Project is to produce documentary material and educational programs that encourage understanding and awareness about a broad variety of social issues. This information and programming are made available to the general public with a particular focus on members of the younger generation.

Vision Project seeks to reinforce the social, cultural and historical contribution that visual documentary work contributes to society. To reach these goals, we have assembled a group of talented professionals with extensive expertise in photography, web technology, journalism, design, and education.

For further information contact:

Richard Falco  
Vision Project Inc.  
P. O. box 230  
North Salem, NY 10560  
USA  
[www.visionproject.org](http://www.visionproject.org)  
[rfalco@visionproject.org](mailto:rfalco@visionproject.org)  
(914) 277-8850