

The U.S. Merchant Marine and Maritime Industry in Review

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1. Introduction

It was a year of exceptional profitability rarely witnessed in the shipping industry that led one Scandinavian analyst to remark “not since the days of the Vikings.” The previous Annual Review of the U.S. Merchant Marine and Maritime Industry referred to the remarkable longevity of the shipping market recovery that began in 2002. As predicted in that issue, 2004 turned out to be a spectacular year for the industry in all major shipping markets far exceeding the expectations of industry analysts. This is a completely new experience for ship owners and maritime observers of the current genre most of who had grown accustomed to the industry’s relatively mediocre levels of profitability during the past two decades.

The impetus for this comes from a global economy that grew at a blistering annual rate of 5% in 2004 anchored primarily by China, and also India, Brazil, and other fast growing developing nations. In 2004, the Chinese exports grew by 37% from 2003 to \$95.3 billion, and its imports to \$84.2 billion. Such massive increases in trade volume augmented the tonnage demand for the year by 10% which was met by only a 5% increase in the supply of global fleet. This has resulted in a 30% increase in the value of the merchant fleet, from \$391 billion in 2003 to \$508 billion in 2004 as estimated by R.S. Platou, the Norwegian shipbroker. All three major shipping markets, viz., liners, tankers, and dry bulk hitting the market highs concurrently guided solely by the invisible hand is truly extra-ordinary and has no recent parallels in the maritime sector. It is not surprising that a 2004 Deloitte and Touche CEO/CFO Corporate Strategy Survey found a significant majority in the industry anticipating a return on equity exceeding 15%.

The balance of power in the maritime sector has swung undeniably toward the Asian countries. The continent is now home to the bulk of human resources involved in port and shipping activities besides being home to a majority of the busiest ports and the largest shipping companies. Add to this the fastest growing big emerging markets, with China alone accounting for 28.7% of the U.S. trade and being responsible for a quarter of the annual world-wide GDP growth in 2004. China has now surpassed the U.S. in the consumption of all basic raw materials except petroleum and solidified its position as the world’s production line. China Shipping Group, the world’s fastest growing shipping company, has recently placed orders for 39 new ships at a price tag of close to \$1 billion.

2. The U.S. Merchant Marine

The ongoing optimism in global shipping markets permeated the usually nonchalant U.S. shipping circles in 2004. Interestingly, this was most visible in the capital markets rather than in traditional ship ownership and operation. This is to be expected as there are not

many U.S.-flag owners and operators still in business in the international arena that could be lifted by the rising tide. A mid-summer *New York Times* magazine article questioned the continuing ability of the U.S. to lead the global economy. One cannot help but contrast the status of the U.S. merchant marine with that of the Chinese who will become the world's largest economy on the basis of purchasing power parity by 2020 at which time they will in most likelihood also have two of the world's largest shipping companies, the world's largest shipyard, the world's largest port complex, and two of the world's largest maritime universities besides being the world's largest supplier of crew members for the open registry fleet. A carefully crafted industrial trade policy when backed by direct and indirect governmental measures is as effective in early 21st century as it did during the 1940s for the U.S. merchant marine following the enactment of the Merchant Marine Act of 1936.

A handful of U.S. operators announced fleet expansion plans in 2004. Among them is the International Shipholding Group, the sole LASH operator in business. With only three 1980-built LASH vessels in operation, the very future of the LASH concept was uncertain beyond 2010. In general, the LASH ships provide a useful niche service for shippers of low value bulk commodities whose small volumes do not justify the need for a dedicated charter or the much more expensive container shipping service. International Shipholding's plan to build an undisclosed number of new LASH ships prior to 2010 is will keep this uniquely American contribution to merchant shipping remain alive.

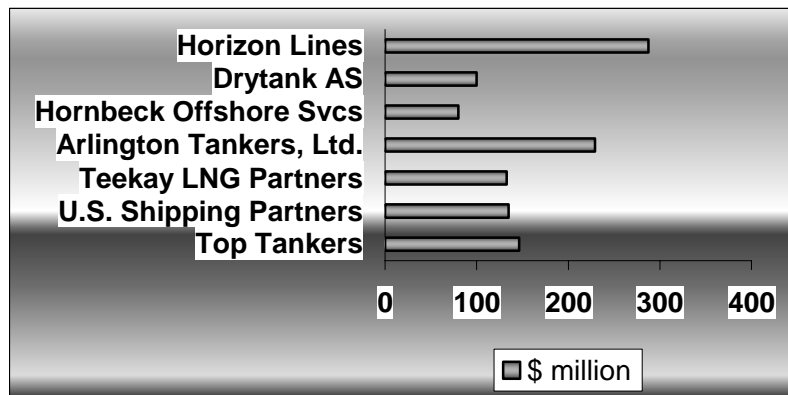
The U.S.-Hawaii trade was the focus of considerable competitive posturing in 2004. It began with the announcement by Pasha Transport Hawaii to begin sailing in mid March 2005, hauling Chrysler autos on a long-term contract. This was followed by the reported initiative of a former Matson executive to begin a new service to Hawaii named OceanBlue Express which would double the number of operators in the trade. Matson has already taken a very aggressive competitive stance against the new entrants. They will exercise their option to buy two more new containerships from Kvaerner Philadelphia Shipyard for \$315 million. Along with the two new ships bought in 2003 and 2004 from Kvaerner, the two new deliveries in 2005 and 2006 will constitute a formidable Matson fleet in the Hawaii trade. They also have the right of first refusal on four additional Kvaerner ships to be delivered by 2010. In the U.S.-Puerto Rico trade, the Jones Act carrier Trailer Bridge has bought out all the stock of Kadampanattu Corp, and will reportedly save \$4-5 million per year.

Shipping-related U.S. Capital Market Developments

The Carlyle group's sale of Horizon Lines for \$650 million in July 2004 after purchasing it 15 months ago for \$315 million was an eye-opener for maritime skeptics on Wall Street. Castle Harlan, Inc., a New York-based private equity investor made the purchase. Stocks listed by public U.S. companies have had an outstanding year. Furthermore, there were five successful shipping-related IPOs (Initial Public Offerings) during the year that raised \$700 million. It is expected that during the first half of 2005, there may be as many as 10 successful shipping IPOs in the U.S. Although Horizon Lines, the largest Jones Act carrier, is one among those seeking public listing, many of these are foreign, family-owned shipping enterprises who are now becoming increasingly transparent and

exhibiting the confidence to seek public listing. Their choice of the U.S. capital market especially at a time when there are increasing concerns about the U.S. economy and the dollar is perhaps reassuring for the U.S. in general. It appears investing in quality shipping stocks has become highly attractive for big mutual funds as well as retail investors. One could argue that the new publicly traded shipping companies are very different compared to their earlier brethren. Decades of market uncertainty has altered their fundamental business philosophy. They now run a tight operation with a relatively young fleet and are managed strategically by well educated professionals. Although one might be aghast by the record new tonnage orders and inclined to interpret this as a repetition of the old mantra of overbuilding at the slightest indication of a market recovery, predicted trade volumes justify these investments. The long list of U.S. publicly traded companies is headed by Frontline, the world's largest tanker operator who posted revenues exceeding \$1 billion in 2004. Figure 1 lists recent U.S. IPOs by maritime interests in 2004 and early 2005.

Figure 1. Shipping-related IPOs in 2004 and early 2005



Source: *Lloyd's Shipping Economist*

3. Institutional and Regulatory Developments

2004 was an epoch-making year for the maritime industry in general not only for pecuniary reasons but also for institutional and regulatory initiatives and developments. Some of these include the introduction of a tonnage tax regime in the U.S., the worldwide adoption of a ship and port security code, and the imminent death knell of the controversial 130 year-old shipping institution known as liner conference.

3.1 Developments in the U.S.

U.S.-Flag Incentives

An election year in the U.S. is typically bereft of significant new developments from a policy perspective. Accordingly, the expectations from a U.S. Department of Transportation (DoT) initiative to enhance the competitiveness of the U.S. Merchant Marine in international shipping (and also that of the U.S. Shipbuilding sector) were relatively low. However, the American Jobs Creation Act signed into law in early November 2004 has a subchapter R to the Internal Revenue Code that allows shipping companies to opt for taxation based on the tonnage of their U.S. fleet rather than on their income. This puts U.S. ship owners in the same status as their European competitors in

particular when it comes to taxation. A U.S. DoT study observed that the tax liability for an assumed \$2 million pre-tax profit of a U.S.-flag vessel was nine times greater than the same vessel under the Norwegian flag, 32 times greater than under the U.K. flag, and 62 times greater than under the Panamanian flag. The subchapter also amends the subpart F of the tax rules. This will allow the U.S. parent companies with internationally active non-U.S. subsidiaries to defer U.S. income tax on those subsidiaries' shipping-related income. Although these developments are significant and are expected to help U.S. operators, it is unlikely that this alone is sufficient to bring back those who left the U.S.-flag for greener pastures. There are other aspects of ship operating costs such as crewing costs that continue to be a major hurdle for U.S. operators. At a minimum, the tonnage tax option will help maintain the status quo for the immediate future.

Another recent initiative to promote U.S.-flag shipping include the joint effort between the Maritime Administration (Marad) and the Ex-Im Bank to provide working capital loans to export service providers such as freight forwarders who could then extend credit terms to their export clients. U.S. companies that elect to ship U.S.-flag will receive up to 95% working capital guarantee from the Ex-Im Bank. The lower limit for Ex-Im Bank guaranteed U.S. export transactions that must use U.S.-flag vessels has also been raised from \$10 million to \$20 million. Accordingly, if more freight forwarders and exporters make use of the program, it will correspondingly help the U.S. merchant marine. It is too early to judge the true effectiveness of these programs. Although one can say that every little help is welcome to the U.S.-flag operators, one should not anticipate any immediate surge in ocean-going U.S.-flag tonnage.

Security-Related Developments

The International Ship and Port Security Code and the U.S. Maritime Transportation Security Act went into effect on July 1, 2004 without creating the Black Thursday as was predicted by some. The Container Security Initiative is now operational in 33 ports located in 21 countries. The Customs-Trade Partnership Against Terrorism (C-TPAT) presently has more than 8,200 voluntary members that include importers, carriers, and intermediaries. The U.S. Customs Service will provide expedited clearance for shippers using smart containers. These are specially-equipped containers that can detect tampering during transit. The smart box technology is still imperfect with one in every 20 boxes setting off a false alarm as per recent Customs testing. The use of smart boxes will be mandatory for C-TPAT participants once the false alarm rate drops to 1%. The cost associated with the smart box technology has reduced significantly and it is projected that it may amount to as low as \$5 per shipment, a very small price for the added security benefits. Under the MTSA, the U.S. Coast Guard approved 9,200 vessel security plans, 3,100 port facility security plans, and 43 regional security plans. A recent Coast Guard port security advisory named seven countries--Albania, Congo, Guinea Bissau, Liberia, Madagascar, Mauritania, and Nauru--non-compliant with port facility requirements of the ISPS Code and hence, not maintaining effective anti-terrorism measures in their ports. The U.S. State Department has issued a special advisory warning in March 2005 of a potential terrorist attack against shipping in East Africa. A 42 year old Bolivian flagged general cargo ship became the first ISPS casualty. The Coast Guard denied her entry into the Port of Miami for non-compliance with the ISPS Code.

Whether or not these have made shipping and our ports any safer is a different issue. There have been numerous questions about the DHS allocation of funds for port security and how it was being spent. According to an audit by the Inspector General of the DHS, while a lot of funds have been spent on redundant lighting systems and unnecessary technical equipment, there has been no actual improvement in port security. Less than a quarter of the \$517 million allocated in grants between June 2002 and Dec 2003 had been spent as of late 2004. As per a congressional report, Wyoming received four times antiterrorism money per capita as New York did in 2004. Port security grants were awarded to the states of Oklahoma, Kentucky, New Hampshire, and Tennessee, none of which are exactly sensitive centers of maritime activity. The DHS, as per the audit, is allocating funds not based on strategic priorities but based on equality and hence, there was no assurance that the program was protecting the most critical and vulnerable port infrastructure and assets. Criticisms have also come from other groups such as the Heritage Foundation, the conservative think tank who felt much more could be accomplished by simply allocating the funds to the Coast Guard rather than individual ports. Meanwhile, the Coast Guard remains under-funded for carrying out its mandate and recently sent a \$1 billion supplemental request to Congress for upgrading and maintaining its ships and aircrafts, expanding maritime security patrols, shore facilities, and other security enhancements. In any case, there was a 28% increase in vessel detentions in the U.S. in 2004. These detentions were for safety reasons although the inspections themselves were held for security reasons. A recent Congressional Research Service report found that the nation's ports remain highly vulnerable to nuclear threat. A nuclear bomb of the size used in Hiroshima if detonated in a U.S. port would cause significant property damage and kill close to a million people, costing \$500 billion worth of direct economic costs and \$1.2 trillion worth of indirect economic costs.

The issue of who should pay for the added security costs has had a predictable ending with the consumer at large becoming the ultimate payee. Beginning in early April 2005, all U.S. Gulf ports will start charging shippers and carriers as per a region-wide agreement to establish minimum security fees which will be 5% of the dockage fees for each vessel call. Break-bulk shippers will be assessed 10 cents per ton, and liquid and dry bulk 2 cents per ton. Containers will be assessed \$2 per loaded TEU and cruise ships will pay a fee of \$1 per embarking passenger. The Miami terminal operator has established a fee of \$4.75 per loaded TEU and the South Carolina State Port Authority, a port security fee based on the length of the vessel and priced currently at \$1 per foot. The Port of Corpus Christi has imposed a 10% security surcharge on all dockage, wharfage, and terminal use rates. It is expected other ports will follow a similar trend and start imposing a security surcharge.

There have been several convictions by the Yemeni appeals court in the suicide attack on *USS Cole* in 2000. The explosion caused by 500-pound explosives made a gaping hole on the ship besides killing 17 U.S. sailors. The suspected ring leader of the bomb attack, known as Al-Qaeda's chief of naval operations in the Gulf, received the death penalty. He is currently held by the U.S. at an undisclosed location after his arrest in the United

Arab Emirates in October 2002. One of his partners received a 15 year jail term; three others would serve five to 10 years in jail and another, five years.

Short Sea Shipping

The U.S. Maritime Administration has continued its enthusiasm for the “blue highways” although the agency’s fixation with the European model as the ultimate short sea shipping model has come under criticism. The primary objective of the program is to reduce congestion on major interstate highways on all coasts, the east coast I-95 in particular. The Marad initiative to promote short sea shipping is called Short Sea Shipping Cooperative Program (SCOOP) and its membership includes all potential stakeholders. The Osprey Line gulf coast container-on-barge service that began in 2000 has expanded to cover Mississippi River ports in addition to ports in Houston, New Orleans, and Pensacola. Columbia Coastal’s *Albany Expressbarge* transport service between New York and Albany that began a year ago made significant progress in 2004. The service began with a 25% price advantage compared to the \$665 trucking cost between New York and Albany. In recent months, the barge rate has dropped even further to as low as \$350 per container thanks to new rate incentives. The Port Authority of New York and New Jersey is promoting such moves as part of its Port Inland Distribution Network (PIDN) and is currently planning additional spokes to Bridgeport, CT, and Providence, RI. Short sea operators have demanded a number of promotional measures such as the elimination of harbor maintenance tax, change in labor laws for handling smaller vessels, and waiver from Jones Act requirements based on the infant industry economic argument.

Maritime Security Program (MSP)

The 2004 Annual Review discussed details of the revised MSP announced last year. The program is intended to boost the nation’s military support capability while also assisting the U.S. merchant marine and the shipbuilding industry. The controversy between Maersk Lines and USSM (United States Ship Management) involving the 15 MSP-approved containerships formerly owned by SeaLand has ended at last. USSM was established as a Charlotte-based U.S. citizen company to operate the former SeaLand vessels in the MSP fleet when A.P. Moller purchased SeaLand’s international services. The Marad decision to transfer the SeaLand ships to Maersk Lines based on their request was contested vociferously by USSM arguing that Maersk Lines was not a U.S.-based company. In late February 2005, USSM withdrew its legal challenges to the Marad decision. Maersk Lines will now operate fully all ships that were time chartered from USSM. The fate of USSM itself is unknown as it did not have any shipping assets other than the bareboat-chartered former SeaLand ships. Marad has released the names of the 13 new MSP-approved ships which together with the earlier approved 47 ships now complete the 60-ship fleet. The new operators are listed below in Table 1.

As the intent of the new MSP program is to have a more balanced fleet in times of national need, the first five slots of the new MSP were to be allocated to U.S.-flag product tankers owned by U.S. citizens. Because there are no such ships today, the slots have been temporarily allocated to three Maersk tankers under charter to OSG and two

heavy-lift ships operated by Patriot Shipping, the intention being to replace them with U.S.-flag product tankers to be built with direct subsidies under the National Defense Tank Vessel Construction Assistance (NDTVCA) program. The program was intended to construct five product tankers, from 35,000-60,000 DWT in size, with the U.S. government subsidizing 75% of the cost up to a maximum of \$50 million per ship. Applicants for the subsidy included OSG, AHL Shipping, Seabulk, Maritrans, Ocean Shipholding, Marine Transport Corp., and Northern Marine, and the Marad was to announce the finalist for the initial funding of \$75 million in early January. It now appears that the entire program is in limbo despite Congressional approval, and the NDTVCA itself may have had a short life.

Table 1. New MSP Recipients: Operators and Ships

Operator	Ship Type	Number
OSG Shipholding Group	Tanker	3
Central Gulf Lines	Ro-Ro	1
Fidelio Limited Partnership	Ro-Ro	4
Liberty Global Logistics	Ro-Ro	1
Lykes Lines Ltd.	Container	2
Patriot Shipping	Heavy Lift	2

Source: *Marad*

The MEBA (Marine Engineers' Beneficial Association) Pension Trust sold off First American Bulk Carrier Corp. (FABC), an MSP participant, in early 2004. FABC operates two 17 year-old containerships. The ships are now owned by Wilmington Trust Company and bareboat chartered by FABC, an independent company, who in turn have time-chartered them to Farrell Lines, a former U.S.-flag carrier but currently owned by P&O Nedlloyd. The two ships operate in the Farrell Mediterranean Express Service. Some U.S.-flag vessel operators are unhappy that Marad did not seek public comments prior to approving these ownership changes.

Marad Ship Scrapping Program

The U.S. Maritime Administration has a mandate to scrap 130 rusting ships currently under its management. These ships, sometimes referred to as the Ghost Fleet by media, are to be scrapped by September 30, 2006. This initiative ran into severe obstacles in 2004. As of February 2005, 121 of those ships anchored in Virginia, Texas, California, and Alabama, remain to be scrapped. About 70 of the James River fleet ships contain hazardous substances such as PCBs, oil, lead, mercury, and asbestos. Legal problems beset four ships sent to Hartlepool, England for scrapping by Able UK, a recycling company in that country as per a \$17.8 million contract granted in 2003. A lawsuit filed by the Sierra Club and the Basel Action Network was rejected recently by U.S. District Judge on technical grounds. There is also opposition to the project from British environmental groups who see this as an effort to export America's toxic waste and are also pursuing lawsuits. Above all, there are questions as to whether Able UK has the necessary permits to scrap ships in that country. All these have led to skepticism about the agency's leadership, its management acumen, and its contracting practices.

Liner Deregulation

The 1998 Ocean Shipping Reform Act amended the U.S. Shipping Act of 1984 by allowing confidential contracting between shippers and carriers and eliminating the carrier tariff filing requirements. Non-Vessel Operating Common Carriers (NVOCCs) were excluded from these benefits in 1998 and have expressed their anguish in no uncertain terms since then. After many years of intense lobbying and legislative attempts, the NVO Service Agreement (NSA) was approved in 2004 which approves NVOCCs' confidential contracting and conditional exemption from tariff filing requirement. The outcome of this particular legislative effort was never in doubt as it was championed by corporate logistics heavyweights such as UPS, Fedex, BAX Global, and others. As approved, NVOCCs can now offer NSA only to the beneficial owners of cargo, and co-loading is not permitted; i.e., the shipper should not be another NVOCC or a shippers' association that includes non-shippers. Two groups representing shippers' associations have petitioned the FMC to reconsider the NSA rule and halt any contracting. NVOCCs can start using the new freedom in 2005. They must first register with the FMC before filing the service agreements and are also required to publish essential terms of their NSA in a public tariff format.

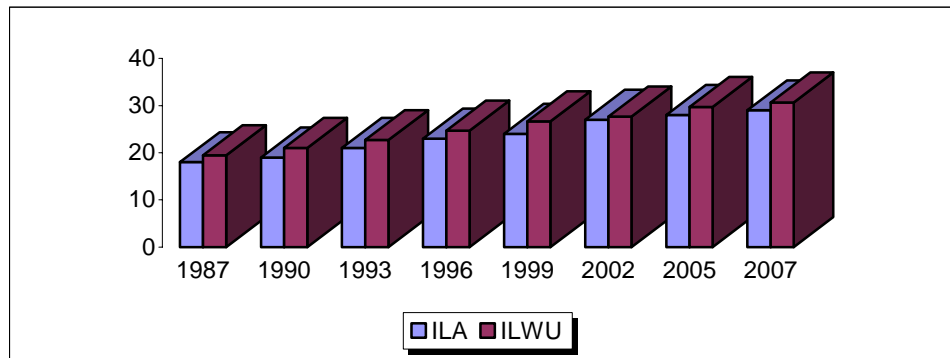
Liner operators that are directly or indirectly controlled by a foreign government are categorized as controlled carriers under the U.S. Shipping Act. Such carriers are required to comply with notice provisions regarding rate changes which are intended to clip their ability to undercut other operators. In early 2004, FMC granted exemption to the two major Chinese operators from the 30-day waiting period for lowering tariffs under the Controlled Carrier Act. Ironically, American President Lines (APL), an American icon now owned by Neptune Orient Lines (NOL), a Singapore-based company with majority government ownership, is also a controlled carrier. APL was also granted exemption from the Controlled Carrier Act in 2004.

East Coast Stevedoring Contract and Related Issues

The ILA rank and file ratified a six-year master contract in June 2004 by a closer than expected margin. There was considerable opposition to the contract from a group of dissidents organized under the name Longshore Workers' Coalition. They are calling for more democracy within the union and are unhappy with the two-tier wage scale offered to those who joined the union after Oct. 1, 1996. A major complaint is that there is no mechanism for the lower tier workers to ascend to the other tier upon gaining experience. ILA does not have the same negotiating leverage as the ILWU on the west coast. Whereas the ILWU negotiates with PMA on one contract for all ports on the entire coast and covers all cargoes, the ILA's master contract covers container and ro-ro cargo only. The union local negotiates separate supplemental contracts with local or regional employer groups that cover work rules, pensions, local benefit plans, and also bulk and break-bulk wages. Both the master contract and the supplementary local agreements were rejected by the majority in Baltimore, Charleston, and Hampton Roads. By 2010 when the next contract is negotiated, the veteran workers will no longer have the majority, and negotiations are expected to be problematic. Dissidents attempted to block the implementation of the new contract and sought temporary injunction in U.S. District Court claiming irregularities which was denied by a federal judge in late September 2004.

United States Maritime Alliance, the employers represented in the master contract negotiations, estimates that the contract will cost employers \$8.7 billion over six years, a 16% increase compared to current levels. Figure 2 shows a comparison of base hourly wages between ILA and ILWU members. The total wages earned each member will also depend on the skill levels, work hours, and other criteria.

Figure 2. Comparison of ILA and ILWU Base Hourly Wages



Source: *ILA*

The investigation of mob influence within the ILA also gained momentum in 2004 and resulted in several indictments on charges of extortion, conspiracy, and mail and wire fraud conspiracy. Some of the indicted include top ranking ILA leaders such as the Executive Vice President of ILA, Member of the ILA Executive Council, and ILA International Vice Presidents in New York and Miami.

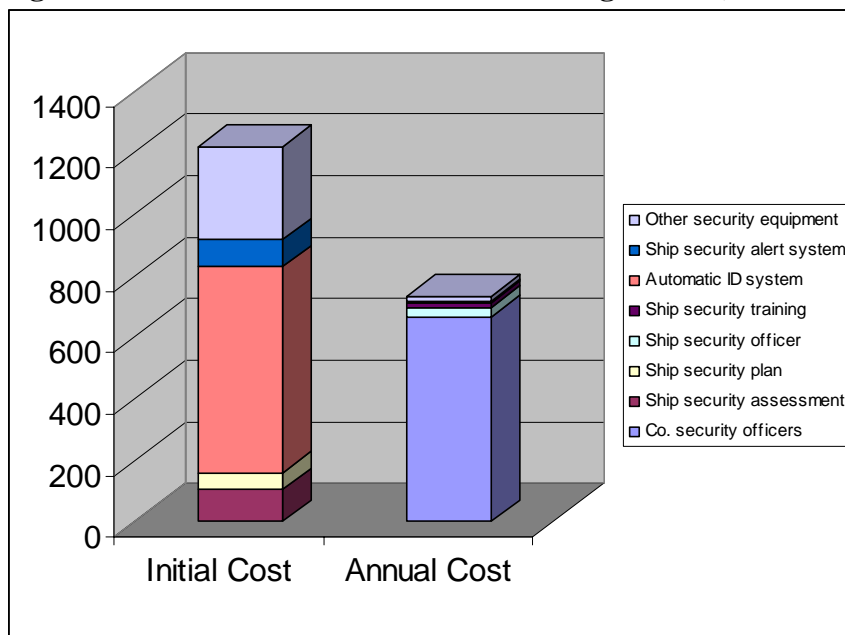
3.2 Globally

Security-Related Developments

The ISPS Code was enacted globally on July 1, 2004. There is considerable antagonism towards the Code and its impact on ports and shipping for understandable reasons. Figure 3 shows an OECD estimate on the impact of ISPS on the global cargo fleet, and Figure 4, ISPS costs for U.S. ports. These are huge expenses the incidence of which has fortuitously coincided with a period of exceptional profitability in the industry. However, the rapidity with which some ships and ports received their ISPS certification in some parts of the world makes one wonder whether the whole effort is an exercise in futility.

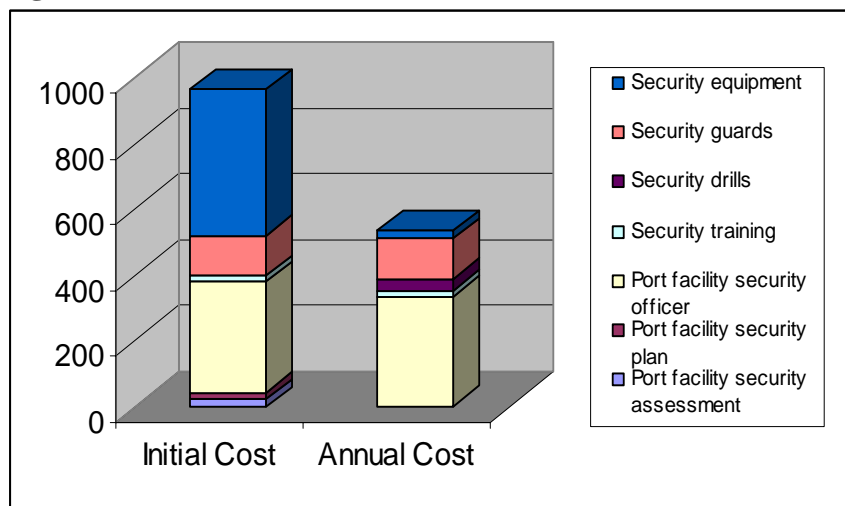
The shipping community has compiled a list of problem areas caused because of the ongoing lack of global standardization in the interpretation and implementation of the ISPS code. The root causes of these problems include uncertainties, misconceptions, and issues that remain unresolved. The most commonly reported complaint about the Code is the callous treatment of crew and the denial of shore leave for certain nationalities. The general presumption that every seafarer is a potential terrorist and ought to be treated as such unless proved otherwise leaves the ship owners in a very difficult position. To begin with, it is becoming increasingly difficult to attract and retain quality seafarers capable of operating modern ships safely. On top of that, when the most basic privilege of a seafarer of stepping ashore after a long voyage is denied for security reasons, seafarer retention becomes a truly monumental task.

Figure 3. ISPS-related Costs for Global Cargo Fleet (\$ million)



Source: *OECD*

Figure 4. ISPS-related Costs for U.S. Ports (\$ million)



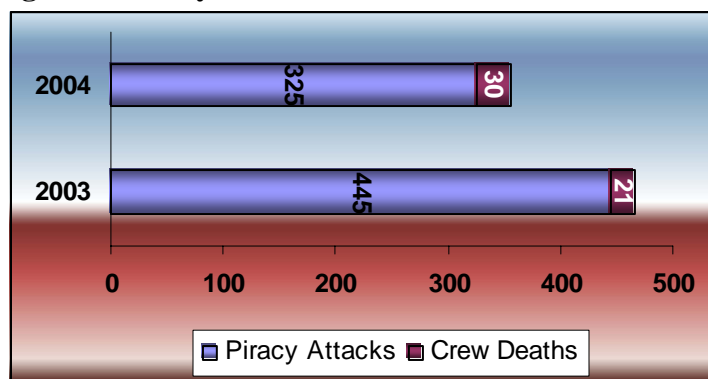
Source: *OECD*

Maritime Piracy

Although there were less piracy attacks in 2004 compared to the previous year, there were more piracy-related deaths as shown in Figure 5. In addition, there were also 86 maritime kidnappings in 2004. Indonesian waters continue to be the prime area where pirates operate followed by the Malacca Strait. Nigeria is the most dangerous country for armed attacks on ships. For almost a month after the Boxing Day tsunami, there was a

precipitous decline in piracy incidents lending credence to the conjecture that many pirates have close links to the Free Aceh Movement. The Indonesian government treats the Free Aceh Movement as a terrorist organization and many experts cite their links to Jemaah Islamiyah, the terrorist group blamed for the Bali night club bombing. After the tsunami-induced lull, pirates appear to be back in business with renewed vigor. In one recent incident, an Indonesian product tanker carrying methane gas was attacked in the Malacca Strait by a gang of 35 pirates armed with machine guns and rocket launchers. Although the hijacked ship was released eventually, its Captain and Chief Engineer are still being held for ransom. In March 2005, the Singapore Navy will launch its “Accompanying Sea Security Teams” (ASST). Each AAST will include eight navy personnel trained to operate a commercial vessel in an emergency. They will wear bullet-proof vests and carry weapons but will not have the power to arrest.

Figure 5. Piracy Attacks and Crew Deaths



Source: *International Maritime Bureau*

Liner Shipping Competition Policy

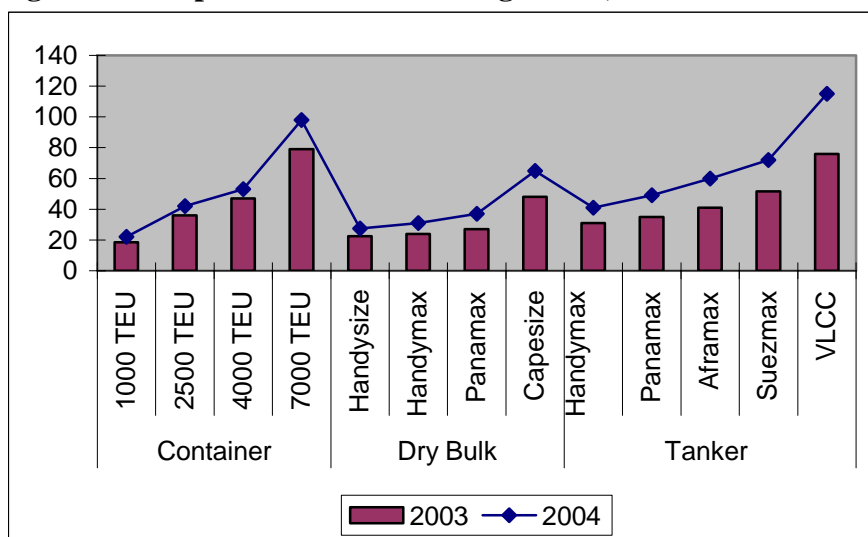
The future of the liner shipping industry self-regulation mechanism, euphemistically referred to as shipping conferences, became crystal clear in 2004. The controversial shipping practice that allows ship owners to collectively set freight rates and schedule shipping services began successfully in the U.K.-Calcutta trade route in 1875. The conference system has historically received greater acceptability in Europe where the U.S. economic regulation of shipping through its Shipping Act was often perceived as an unnecessary interference in the market process. Ironically, the 130 year-old institution is coming to an end because of actions by the European Union Competition Directorate. The conditional anti-trust exemption given to conferences by EU in 1986 had met with consistent shipper opposition and a 2002 OECD Report had called for its gradual abolition. In an October 2004 White Paper, the EU Competition Commissioner has asked for stakeholder input in the proposed elimination of the conference system including possible alternatives. Anticipating this, the European Liner Affairs Association (ELAA), a trade association that includes the top 24 container operators, offered to stop collective ratemaking on routes to and from Europe in early Fall 2004. The ELAA proposal includes replacing conferences with trade associations responsible for maintaining market supply and demand data that could be used as a decision-making tool by all member carriers and use common formulas for estimating surcharges. Interestingly, the proposed ELAA model comes fairly close to the discussion agreement

model currently in vogue in the U.S. trades, and would allow carriers to discuss ancillary charges but not rates. As the new rule would impact EU exports as well as imports, this will affect U.S. liner movements to and from EU member nations. Separately, the Australian Competition and Consumer Commission (ACCC) also recommended putting an end to the anti-trust exemption granted to conferences in Australia's Trade Practices Act.

3. Market Developments

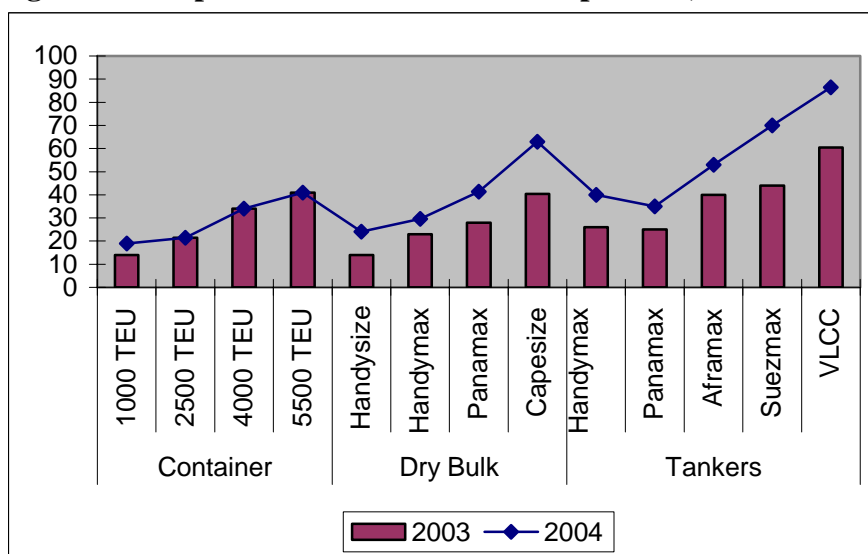
All major shipping markets reached new peaks in their revenue growth. The utilization of the existing shipping capacity was at record levels. It would seem that anyone who had a ship could do no wrong in such perfect market conditions. Predictably, this led to drastic increases in ship prices both new and used (see Figures 6 and 7).

Figure 6. Comparison of Newbuilding Prices, 2003 Vs. 2004



Source: *LSE Data*

Figure 7. Comparison of Five Year-old Ship Prices, 2003 Vs. 2004



Source: *LSE Data*

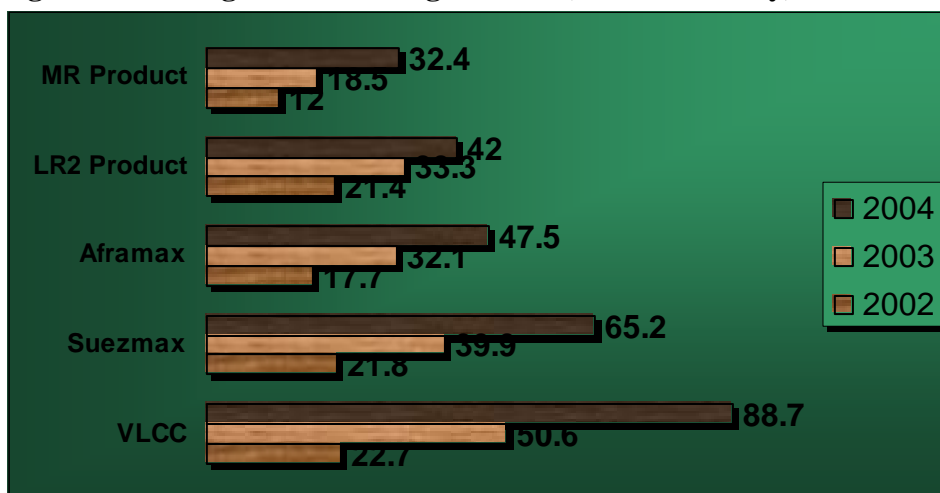
Dry Bulk Market

The Platou Report paraphrases the 2004 market for dry bulk shipping as the “best market ever.” The market’s spectacular performance in 2003 grew even more phenomenal in 2004 with annual ship capacity utilization averaging 97%. The average daily earning of Capesize and Panamax size bulk carriers in 2004 almost doubled from the 2003 levels. There was a high level of volatility in the rates, with modern Capesize tonnage earning as much as \$100,000 per day and averaging \$62,500 for the year. Although the seaborne trade volumes of all bulk commodities registered gains, the most notable increases were in the movement of iron ore and steel products. The voracious steel mills in China demanded ever more iron ore in 2004 and led to a 41% increase in Chinese iron ore imports although this decreased their steel imports. The U.S. steel imports however increased by over 50% as per Platou statistics.

Tanker Market

Tanker owners had an outstanding 2004 as highlighted by the \$1.02 billion net profit reported by Frontline, the world’s largest publicly listed tanker operator. This was caused by the exceptionally high demand for oil despite major hikes in crude oil prices. The increase in tonnage was insufficient to match the growth in demand that led to daily hire rate for VLCCs crossing \$200,000 per day in November 2004 and overall high average rate levels (Figure 8).

Figure 8. Average Tanker Freight Rates (\$Thousand/day)



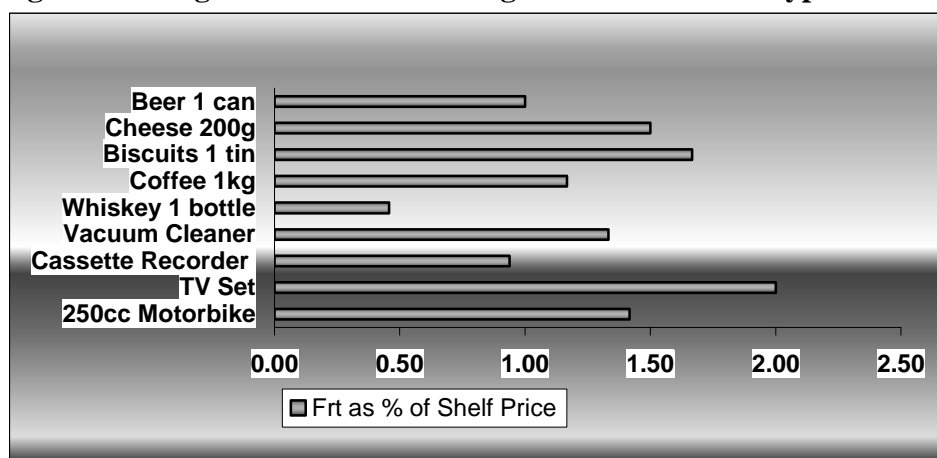
Source: *Platou Report 2005*

Liner Market

The liner bull-run that began in 2003 reached even higher levels in 2004. All publicly listed liner operators reported higher profit and operating margins for the year with a couple of minor exceptions. As per a recent Drewry Shipping Report, the annual revenue per TEU increased 6.4% in 2004. Interestingly, the 2004 liner market performance confounded most professional forecasters. Although only a mediocre level of growth was projected even for the trans-Pacific trade, the actual growth for the year was more than 9% overall and 13% for the trans-Pacific trade. It appears traditional forecasting

models are now unable to capture the ongoing extra-ordinary market dynamics. An unfortunate consequence of this has been severe port and intermodal congestion on the west coast discussed later. Furthermore, in late 2004, trade periodicals were rife with stories about the possibility of Wal-Mart Stores buying out APL, the second largest container operator serving the U.S. trades. The justifications for such a move highlighted by the media include better control of the supply chain, and the ability to overcome congestion through preferential treatment of one's own cargo. None of these, however, makes any sense. There are more efficient ways to control one's shipping problems than through private ownership and vertical integration. Liner shipping annals dating back to the late 19th century are strewn with many such failed attempts. Besides, when the liner operators are providing a good, quality service at reasonable prices (see Figure 9), why would a retailer want to enter a shipping sector that did not attract the like of even a Sir Y.K. Pao, the legendary shipping tycoon who once compared liner shipping to a game of Russian Roulette?

Figure 9. Freight Rate as a Percentage of Shelf Price of Typical Consumer Goods



Source: ELAA

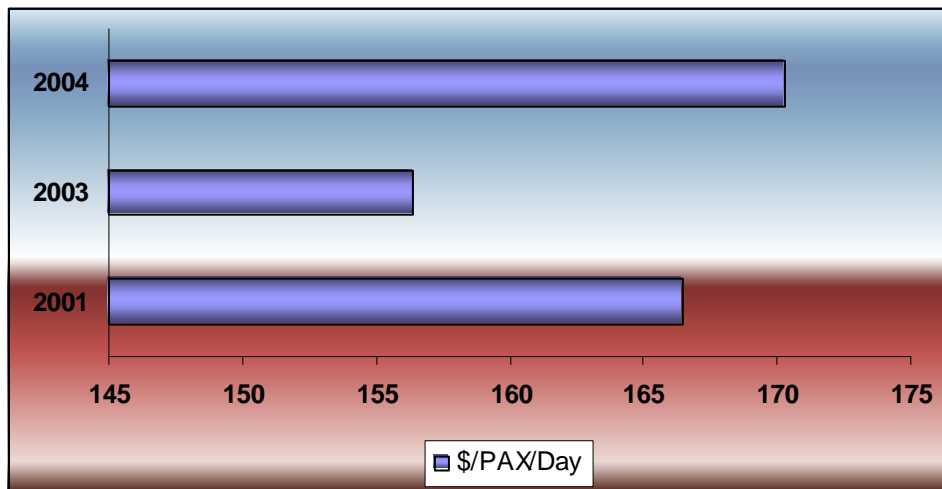
Maersk SeaLand resigned from the Trans-Pacific Stabilization Discussion Agreement (TSA) in September 2004. TSA establishes guidelines for rate actions and surcharges in the eastbound Pacific trade but has no enforcement power unlike the more traditional shipping conferences of the earlier genre. Despite the flexibility permitted by current conference agreements, major carriers are finding that their membership in cartel-like agreements impedes their market agility and hence, the ability to respond expeditiously to the increasingly sophisticated supply chain needs of their customers. It will be interesting to see how long the TSA will survive under the current market conditions.

Cruise Shipping

The cruise shipping recovery from the 9/11 effect has been remarkable. Although cruise ticket prices have increased by 40 to 50% in some cases, passenger reservations are running at record levels. Carnival Cruise Lines, the world leader, had its most profitable year in 2004. Their net revenue yield which is the average profit per passenger per day increased considerably in 2004 (see Figure 10). Carnival operates a fleet of 77 ships and at any given time carries 175,000 people on its ships. Other major players like RCCL

and Star/NCL are also reporting excellent market conditions. With fewer new ships expected to enter the market, the cruise prices will continue their upward trend for the immediate future.

Figure 10. Carnival's Net Revenue Yield Changes



Source: *Associated Press*

Shipbuilding

The exceptionally buoyant shipping markets have predictably led to increased orders for new construction. Presently, all shipyards in South Korea, Japan, and China have a significant backlog with delivery times being three years away. The orders for new containerships are at a record pace with the operators anticipating the boom conditions to last at least another four years. A record number of new containerships were ordered in 2004, and it is running 60% ahead of that in 2005 as of late February. The majority of new containerships are for the Panamax (5-6,000 TEU) and post-Panamax (8,000+ TEU) category. New building prices have increased tremendously over the years. It is believed that the cost of a new VLCC alone has gone up 56% in the last year.

Korean shipyards are now well established as the world leaders, gaining twice as many new tonnage orders as the Japanese yards in 2004. Although these orders will keep them busy for the next three years, contrary to what one would anticipate, Hyundai and Samsung, two of the Korean yards posted a loss for 2004 and Daewoo, the other one, a significant decline in profit. All three Korean yards have cut back on their order targets for 2005. The reasons cited for this unusual anomaly include the increasing price of steel plates and marine equipment, and the appreciation of the Korean won. Their predicament carried over to the WTO where although they received a favorable ruling against EU retaliation, the Korean shipbuilders were asked to terminate certain shipbuilding subsidies within 90 days. The Chinese shipyards have also made important strides during the year. China State Shipbuilding Corp. (CSSC), the largest shipbuilder, is now among the top five builders in the world and is meeting its order targets ahead of schedule. CSSC has established cooperative ties with Japanese yards as part of their aggressive market expansion. China Shipbuilding Industry Corp. is the other major Chinese player and has also posted significant annual growth in new construction.

4. Port and Terminal Operations

2004 was notable for massive bottlenecks in major container ports such as Long Beach and Los Angeles, and also in Europe. The west coast ports in particular introduced various automation measures that include computerized yard management programs and RFID tags for harbor trucks to track their movements in the yard approved under the new ILWU contract. The expectation was that all this would increase terminal productivity. This did not materialize for a long list of reasons including higher than anticipated cargo volumes, the introduction of the post-Panamax 8,000+ TEU containerships, insufficient stevedoring labor and drayage truckers, increased security measures, poor infrastructure, and inadequate rail and intermodal capability. The consequences of this have been carrier imposition of surcharges and increased fuel costs in addition to overall supply chain disruptions. The trade volumes are expected to post double digit growth in 2005 as well which leaves little room for comfort for the ports and the carriers. More than 80 post-Panamax ships are expected to enter the trans-Pacific trade in 2005. Carriers like China Ocean and Hyundai Merchant Marine have placed huge orders for 9,000-10,000 TEU ships.

With a view to reducing congestion, the west coast marine terminal operators are planning to introduce PierPass, a program to divert more cargo into off-peak hours by charging a \$20 per TEU fee on daytime traffic at the ports of Los Angeles and Long Beach. PierPass revenue will be used to offset the additional costs incurred in running night and weekend operations. Empty containers, bare chassis, intermodal containers using the Alameda corridor, and those containers that transit the terminal gates during published off-peak hours will be exempt from the fee. The ILWU's support for the program is unclear at this point.

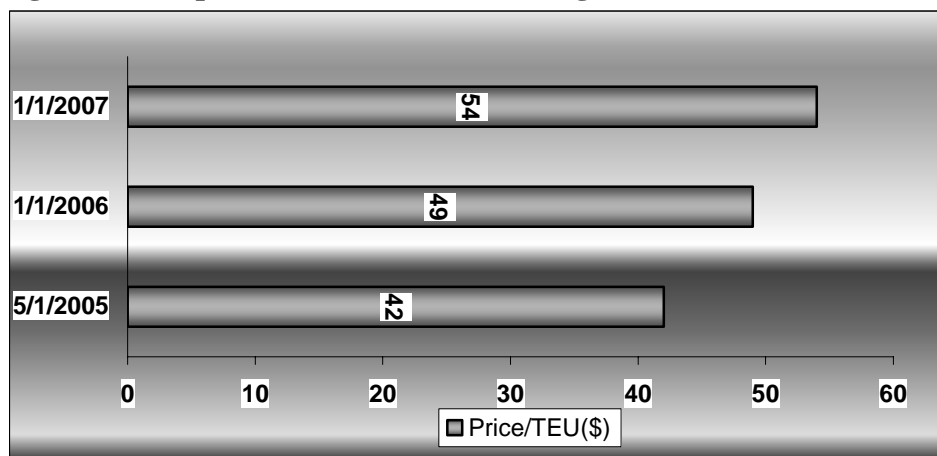
On the east coast, the Port of New York and New Jersey's on-dock rail service is breaking new records and the port is pushing ahead with its \$600 million master plan to build three new or expanded on-dock or near-dock rail terminals. Even the FastShip project appears to have resurfaced once again with a \$40 million appropriation for building a marine terminal in Philadelphia. This will be combined with the \$75 million provided by the Delaware Valley Port Authority to build the terminal next to Packer Avenue Marine Terminal.

The west coast congestion problems have prompted the carriers to increase their all-water services to the East Coast. Major importers are now establishing their distribution centers on the east coast. However, more ships are required for fixed-day weekly service through the Panama Canal compared to the west coast intermodal route which has become a problem for some operators who are facing unprecedented high charter hires for container ships of all sizes. A large number of newly-built 8,000 TEU+ container ships are scheduled to enter the trans-Pacific and the Asia-Europe markets in particular in 2005. It is expected that this will displace the current genre of 6,000 TEU ships presently active on the west coast toward the U.S. east coast either through the Panama or the Suez Canal.

5. The Panama Canal

In retrospect, the 1997 acquisition of Southern Pacific Railroad by Union Pacific and the subsequent intermodal disruptions that beset the flow of commerce were a precursor of the impact of the west coast congestion problems. The 9/11 disruptions, the 2002 west coast port strike, and now the 2004 cargo surge have emphasized the weakness and the unreliability of a supply chain based on west coast nodes. Accordingly, shippers have been demanding and carriers readily obliging them with increased all-water services through the Panama Canal. The Canal has entered into strategic partnerships with many ports on the east and the gulf coasts to promote all-water services and positioned itself very strategically. Although the all-water route would increase cycle time by close to two weeks, it offers the reliability that contemporary just-in-time supply chains need. So it is not surprising that in 2004, the Canal posted a 10% annual increase in the tonnage handled and a 6.7% increase in the number of transits for the year. Interestingly, more than 5,000 of the total 14,035 transits in 2004 were made by Panamax vessels, the approximate 950 feet long and 40 feet in draft maximum ship size that the canal can handle presently. This increased the average canal transit time (Canal Waters Time) for the year to 26.7 hours, a 17.4% increase compared to 2003 transits. The Canal Authority has taken multiple measures to cope with the higher demand for its waterway. These include changes to the Panama Canal Transit Reservation (Booking) System, and an updated measurement and pricing system for containerships and other vessels with on-deck container capacity (see Figure 11). The Canal Authority is widening the Gaillard Cut, deepening Gatun Lake and channels, installing a GPS-enabled vessel traffic management system, and also replacing locomotives. Furthermore, there is a serious multi-billion dollar major expansion of the waterway subject to a forthcoming nationwide referendum.

Figure 11. Proposed Panama Canal Pricing Plan



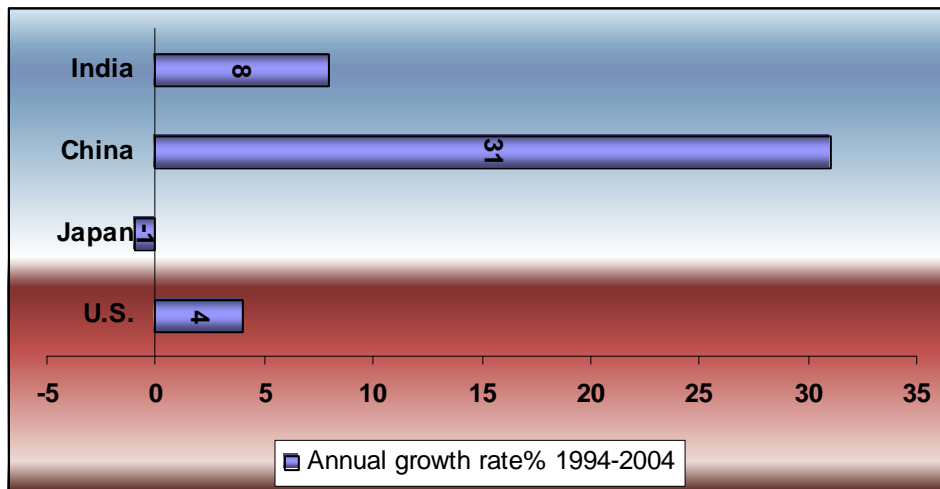
Source: *Panama Canal Authority*

6. The LNG Era

Every trade publication has a very upbeat view on the future of LNG with the Economist magazine even naming the 21st century as the century of natural gas. The growth of LNG has been hampered historically by the expense of liquefying, transporting, and re-

gasifying. However the geopolitical realities of the 21st century has resulted in escalating oil prices and countries' desire to diversify their energy sources in addition to the stringent Kyoto protocol provisions. Thus the conditions now are ideal for extensive investment in this sector which is seen as the energy of the future. LNG is available at many locations and it causes less harm to the environment. New technology has lowered the costs associated with LNG use. Although Japan and S. Korea have been the historical markets for LNG imports, it is anticipated the LNG demand will go up significantly in the U.S., China, and India in particular, all being nations with a very high thirst for oil (see Figure 12). Currently, the U.S. energy consumption is about 1% LNG and it is expected to rise to 20% in the next 20 years.

Figure 12. Percentage Change in Annual Oil Import Growth Rate, 1994-2004



Source: *Energy Information Administration*

Iran, Russia, and Qatar are the dominant LNG fields in descending order. More than \$30 billion dollar investment is expected to go into the LNG market in the next 20 years by which time the gas market could very well rival if not exceed the oil market. The world natural gas consumption will double in the next 15 years and reach almost five trillion cubic meters. This optimism is reflected in the shipbuilding market too. There is large number of LNG tankers of increasing sizes being built now despite their high cost. There are even talks about the emergence of a spot charter market for LNG tankers which would have been brushed off as illusionary until recently.

There is a global rush to build LNG infrastructure to handle the anticipated increase in ship calls and cargo volumes. The U.S. has four LNG terminals nationwide currently, the last one having been built 20 years ago. New LNG terminal construction plans have emerged in various coastal states from Maine to California. Despite an enviable safety record and the potential for significant economic contribution, communities remain skeptical of the sector including potential terrorist incidents. Industry associations such as the Society of International Gas Tanker and Terminal Operators (SIGTTO) have undertaken concerted educational efforts. Recently released statistics from top liability insurers for the LNG fleet show that LNG-related claims for the past 18 years is barely \$17.5 million. The 2004 Sandia Laboratory study for the U.S. Department of Energy

found that “risks from accidental LNG spills, such as collisions and groundings, are small and manageable with current safety policies and practices.”

7. The Human Element

The current market conditions and the jubilant mood of ship owners may have been partly responsible for a unique international collective bargaining agreement that went into effect in 2004, covering crew wages and working conditions. Parties to the agreement include the International Transport Workers Federation (ITF) and the Joint Negotiations Group representing employers. This is expected to bring stability and certainty for both parties, and is the world’s first global collective bargaining agreement. This is a welcome development for all parties involved and is far superior to the old ITF-policy of unilaterally establishing minimum wages for ABs as a benchmark. With open registry fleets now constituting seven of the top 10 flags, the two-year agreement bodes well and may lead to a more placid relationship between the two traditional adversaries.

Overall, crew costs have gone up especially for running specialized vessels. A 2004 Moore Stephens study found that crew cost for VLCCs went up by 7.8%. About 40% of the operating cost of a VLCC now comprises crew costs while that for a Panamax bulk carrier is about 46%. Although the labor market for ratings is forecasted to remain stable, there is a shortage of senior officers for the international fleet, especially those working on specialized vessels such as VLCCs and LNG carriers. This situation will tighten further with the scheduled delivery of an unusually large number of new ships, many of them being of the specialized category. The LNG sector is one ship category that faces a severe shortage of trained personnel. The going market rate for an LNG Master under the open registry is close to \$10,000 per month which is almost twice the pay of a master on an open-registry traditional cargo ship. The International Association of Maritime Universities (IAMU), a global organization of premier maritime colleges and universities, is embarking on a joint effort to promote LNG education among member institutions and raise the standards based on a common curriculum. Maine Maritime Academy is playing a leadership role in this regard.

Although the monetary conditions for seafarers may have stabilized, the profession is losing its charm. The new anti-terrorism rules have been highly demoralizing for merchant mariners from most developing countries and the issue of shore leave denial in developed countries has become very sensitive. In November 2002, the U.S. made a strong case to the IMO to introduce biometric identification for seafarers and replace the Seafarers’ Identity Documents (SID) introduced in 1958. The standards for SID were developed at a record pace within 18 months under the auspices of the ILO. The standardized ILO card would contain two finger-prints of the cardholder and other pertinent information to allow its use as a travel document. The U.S. State Department however rejected the ILO card in 2004 and insists on each individual getting an entry visa from a formal meeting with the consular officers at U.S. embassies. The U.S. Transportation Security Administration (TSA) is meanwhile developing the Transportation Worker Identification Card (TWIC). The TWIC technology is considered to be superior to the ILO card technology.

Foreign seafarers find the U.S. treatment to be arrogant while investigating environmental pollution incidents. A recent incident involving 13 Filipino seafarers resulted in diplomatic protest from the Philippines government. The 13 crew members were restrained with shackles and leg irons and kept in jail in Los Angeles. Gone are those days when merchant mariners were welcome in every port with open arms and treated as global citizens. The retention of quality merchant mariners especially when there is a crying need for those with expertise on specialized vessels is becoming increasingly very difficult.

8. Outlook

Will shipping continue its brilliant performance in 2005, making us run out of superlatives once again? All analysts are predicting that the current bull market in shipping will continue in 2005 and perhaps into most of 2006. The Chinese economic engine will continue its spectacular growth in 2005 in most sectors, once again serving as global shipping's sheet anchor. Every shipping market is expected to do well despite the large new tonnages entering the trade although some softening is likely in the dry bulk market. In the U.S. LNG sector, the recently opened Excelerate Energy Bridge terminal may be the harbinger of the future. America's first LNG terminal in 20 years is located 116 miles off the Louisiana coast.

One cannot complete an annual review of the 2004 merchant marine without reflecting on how the year ended punctuated by a catastrophic global tsunami that reshaped major segments of the coastline from South East Asia to the East Coast of Africa. It served as an apocalyptic reminder that human ingenuity can only go so far and that we are still at the mercy of the basic elements of nature. Although the maritime sector was spared from much of the havoc caused by the tsunami, there is a timely lesson here. The sea is too unpredictable to be lulled into complacency and the maritime sector, despite what appears to be its 21st century reincarnation is only as stable as the next market downturn. Merchant marine stakeholders are still susceptible to unexpected tsunami-like conditions, far beyond the predicting capability of industry analysts and observers. So, here's wishing our mariners *safe seas and fair winds* until next year.