I would like to thank you for the opportunity to speak today at the Philadelphia World Trade Association’s “State of the Port” Luncheon. Philadelphia is an essential part of our nation’s history, and the region’s ports have been and continue to be a part of that legacy and essential to tens of thousands of jobs in the region.

The World Shipping Council represents the international liner shipping industry. WSC members operate a variety of shipping services to the region, including CMA-CGM, CSAV, Maersk, MSC, Hamburg Süd, Hapag Lloyd and Rickmers Line serving the Port of Philadelphia; Dole, MOL and Wallenius-Wilhelmsen serving the Port of Wilmington, and Crowley operating its Puerto Rican service from Pennsauken. While my comments today will focus on the liner sector of the industry, I fully recognize that bulk, break-bulk and other shipping sectors are also vital contributors to the region’s maritime community.

Let me start with the good news. Even though the liner shipping business remains financially challenging, with most carriers obtaining financial returns that can please few owners, the industry continues to do what society wants it to do – invest in a global transportation network to move the world’s commerce as efficiently as possible.

Unlike other modes of transport, there are no barriers to entry in international shipping. The industry is not highly concentrated, and in fact, there continue to be more competitors
than many analysts believe is financially healthy for the ocean carrier industry. There is currently more capacity than cargo demand to fill that capacity. And, on top of that, the industry is cyclical, and most trades are imbalanced.

It’s no secret that international liner shipping is a tough business. Shipping rates are under constant pressure.

It is a bit of a paradox that, notwithstanding financial returns that are generally poor, investment continues at the rate it does. It is not an industry of quitters. It is one of fighters.

The strategies being used to win the fight are evolving. Some carriers that have tried to differentiate themselves by providing higher cost, but premium, service have had a tough time making those higher operating costs pay off. Higher cost services struggle to attract enough cargo at rates needed to cover those higher costs. As a result, carriers have had little choice but to focus on cost-savings and increased efficiency as their strategy.

For example, fewer ocean carriers try to provide integrated or sophisticated logistics services as part of their ocean transportation service offerings. Because the market dynamics predominantly favor shippers, carriers have been generally unsuccessful at recovering the costs of higher “value added” services, so they are offering them less often as part of their ocean transportation services. To the extent ocean carriers offer such logistics services, they increasingly tend to do that through stand-alone affiliate companies that are responsible for their own profit and loss, not as an integrated service offering that they will be pressured to give away to a customer at less than cost in the ultra-competitive liner shipping market.

The competitive market forces have led to a variety of ocean carrier cost saving measures, such as “slow steaming” to save fuel. They have led to ocean carriers getting out of the practice of providing container chassis here in North America. They have led to a focus on larger, more fuel efficient ships that have lower costs per container slot – even if that means fewer service strings, and challenges at port terminals that have to handle the larger cargo volumes associated with loading and unloading larger ships.

These changes are unlikely to go away. Carriers can’t control the market, so they must focus on areas where they can hope to have some control – their operational costs and efficiencies. Some shippers may not like slow steaming because it takes longer for their cargo to be delivered, but there are simply not enough shippers willing to pay the higher fuel costs of faster service.

Shippers may not like ocean carriers getting out of the chassis business, but chassis have been a huge expense that has rarely paid off for an ocean carrier. Conservative estimates previously put the cost of owning and operating the U.S. chassis fleet at about $1 billion a year.
Shippers may not ask for larger and larger ships, but if these ships are more efficient per container carried and provide a better way for carriers to manage their costs, their use is inevitable.

Maersk’s E-class ships can save 4,000 metric tons of fuel on a Europe-Singapore voyage by slow steaming, which saves $2.4 to $2.8 million on a one way voyage. While the environmental advantages of burning less fuel are notable and likely to continue, it is the economics of the business that has driven, and will continue to drive, these forces.

And, as I will explain in more detail in a few moments, the cost of marine fuel creates a continuing and longer-term challenge for carriers. As shipyards and engine manufacturers market and produce ever more fuel efficient vessels, the economic incentive to order such new fuel efficient capacity will continue. And, while it may be quite logical for an individual firm to do this, the cumulative effect of such decisions -- in the absence of significantly greater ship scrapping -- will continue to make it challenging for the industry to match capacity growth with the slow growth in cargo demand. Thus, very competitive market pricing seems likely to be with us for the foreseeable future.

The other result of these market dynamics is for carriers to focus on even greater cooperation on their operational networks to increase efficiency and lower their costs. The Maersk/CMA-CGM/MSC “P 3” network is the most recent, dramatic example of this.

It is difficult to envision these market “drivers” changing in the foreseeable future.

Carriers have been remarkably unsuccessful in extracting greater revenue from customers, or even driving more logic, efficiency and predictability into their customer relationships.

For example, Lloyd’s List ran an article this summer on the continuing problem of “phantom bookings” and “cargo no-shows” – where forwarders/NVOCCs books space on a voyage, but fail to tender the cargo – leading to a variety of problems, from vessels sailing “light”, to carriers overbooking in anticipation of delinquent, no-show cargo. There aren’t many industries where this kind of problem would be tolerated, but carriers’ leverage to impose the needed market discipline is usually not sufficient.

So, if the market doesn’t allow you to charge a premium for premium service, if the lowest rate is what attracts the cargo, and you have many competitors who strive to fill their capacity with as much cargo as they can attract, a continued crusade for cost control will be with us for the foreseeable future.
Against this backdrop, what are the relevant, emerging government regulatory policies that will be of importance to carriers and their customers?

**The “Green Storm”**

Fuel costs comprise the majority of a liner shipping company’s operating costs. The container shipping sector of the industry has been estimated to use roughly 75 million tons of fuel per year. Fuel prices of $600-$700 per ton are already driving the market behaviors I have described. Government regulations will only further squeeze the industry’s finances and force a continued effort to improve fuel efficiency. Let me explain.

- “Emission control areas” or ECAs adjacent to North America, the North Sea and the Baltic require marine fuel to have no more than 1% sulphur today. This will drop to 0.1% sulphur in 2015. The 2015 fuel standard will further increase carriers’ fuel costs.
- At-berth low sulphur fuel requirements, in addition to ECA requirements, are applicable in Europe, California and perhaps soon in Hong Kong.
- On 1 January 2014, at least 50% of an operator’s vessels calling California must connect to shore power, and the total auxiliary engine power generated by the fleet’s ships while docked at the port must achieve a 50% emission reduction across the fleet. These emission reduction targets increase over time.
- Vessels being built in 2016 and thereafter that will operate in the North American ECA will need to be equipped with Tier III NOx technology (i.e., selective catalytic reduction (SCR) technology or exhaust gas recirculation).
- But all of these requirements pale in comparison to the impact of the MARPOL Annex VI requirement to end the global shipping industry’s current use of heavy fuel oil and to mandate a maximum 0.5% sulphur fuel globally – not in Emission Control Areas, but anywhere at sea. This will be the single most expensive environmental regulation the shipping industry has ever faced. Regardless of whether the IMO retains the effective date of this requirement as 2020 or moves it to 2025 (as it may), the estimated cost impact of switching from heavy fuel oil to a 0.5% sulphur fuel on a global basis could be $75-$100 billion annually.\(^1\) Even if scrubber technologies are determined to be reliable and their water discharges determined to be environmentally effective and acceptable, and even if the entire fleet installed them and achieved a 50% cost reduction from the

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\(^1\) If the global maritime industry burns 250 million tons of heavy fuel oil (HFO) a year and if a compliant distillate fuel product costs $300/ton more than HFO, the cost increase of this change in fuel standards would be $75 billion per year. With a $400/ton cost difference, the increase would be $100 billion per year.
higher price of low sulphur fuel, that would still be the most expensive environmental regulation the industry has ever had to comply with.

The market dynamics I previously described that have forced ocean carriers to find various ways to reduce their costs and increase their efficiency per container carried are only going to become even stronger when these higher fuel costs arising from ECAs and from a global low sulphur fuel standard are implemented.

These impending regulatory changes to fuel standards -- and their resulting higher costs -- provide such a substantial imperative for ocean carriers to increase fuel efficiency that the industry and its customers can ask: What more will governments think they need to do to improve shipping’s fuel efficiency and to reduce ship emissions?

The answer to that question is not clear.

In the interest of reducing carbon emissions as part of a “climate” agenda, various governments at the International Maritime Organization (IMO) and within the European Union are looking at a range of possible additional regulatory concepts, ranging from more fuel taxes or emissions trading (euphemistically called “market based measures”), to the establishment of ship operational efficiency standards.

Now let me be clear. WSC and its member shipping lines have supported the development and application of mandatory ship efficiency design standards, which the IMO has established for new-builds. WSC, jointly with Japan, even went further and recommended the application of mandatory efficiency design standards for existing vessels – a step further than the IMO and much of the industry was willing to go.

But regulations governing a vessel’s operational efficiency would present a host of complexities that have not yet been fully considered.

Let me try to simplify the issue to explain. Today, the U.S. government sets mandatory design efficiency standards for cars and trucks. EPA requires average vehicle fuel efficiency for cars and light-duty trucks to be 35.5 mpg by 2016 and 54.5 mpg by 2025. Those are vehicle design standards. A vehicle operational efficiency regulation would provide that, after you buy a car that meets these design standards, you would have to comply with additional regulatory standards affecting its operation, including how fast you drove it, how much fuel you used, how you maintained it, etc., along with mandatory regulatory filings showing these things.

It is not clear where this conceptual discussion at the IMO or within the EU will go, but the industry and its customers need to pay attention, as fuel efficiency at an operational level is
influenced by a host of factors ranging from weather, to outrunning pirates, to maintaining vessel schedule integrity when there is a slow-down in an operating network.

A more fundamental point is that, before establishing additional operating efficiency regulatory standards for ships, it would be helpful if governments were to explain why the much higher costs of the forthcoming MARPOL Annex VI fuel regime in 2020/2025 do not already provide more than sufficient incentive for the shipping industry to become as fuel efficient as practical. Isn’t a $75-100 billion annual increase in fuel costs going to be sufficient to incentivize the shipping industry to be as fuel efficient as it can?

Governments should also explain why shipping, which is already the most carbon efficient form of transporting goods, should be the first and only transportation industry to have operational efficiency standards applied to it.

Higher future environmental compliance costs for the industry are not limited to vessel air emissions. U.S. national law, and an IMO Convention which has not yet come into force, will require ships to install ballast water treatment technology. The U.S. government has not yet approved any treatment technology as able to meet the required treatment standards. If and when such technologies do pass the required tests however, the cost of implementing this requirement will be quite high. For the liner shipping sector alone, a reasonable estimate of the cost for installing treatment technology on only those vessels calling U.S. ports would be well in excess of $2 billion.

**Customs, Safety and Security**

**Customs:** In addition to environmental regulations, let me briefly touch on other regulatory developments that may affect the industry. In the years immediately following 9/11, the development of an enhanced Customs and cargo security regime was a priority subject for the government and the industry, and a frequent topic of discussion at events like today’s. I believe it is accurate to say that the vast majority of observers believe that the current U.S. cargo security regime provides the government with a strong cargo risk assessment capability and insight into the country’s international supply chains, and that it has done this with no significant impairment to the efficient movement of the nation’s cargo. The main focus the liner shipping industry currently has with U.S. Customs and Border Protection is to make sure the existing system works well and to support the government’s efforts to automate and modernize the filing of U.S. export cargo information.

With respect to European security requirements, the European Union is still in the process of defining how it intends to enhance its Customs authorities’ container security risk assessment capabilities. We expect that in early 2014 there will be a decision about what additional cargo data may be required of whom. The most logical outcome of this debate
would seem to be to require NVOCC/forwarders to file their “house” bill of lading cargo manifest data to European Customs authorities. Contrary to the U.S. requirements, the EU today only requires ocean carriers to file advance cargo information at the master B/L level. Such a change in the European approach should present no insurmountable hurdles for U.S. exporters or NVOCCs/forwarders. If, however, the EU were to try to require the submittal of data that the filing party does not possess in its normal course of business, complications and problem may arise. This is an issue that will be worth monitoring for those engaged in European trades.

**Safety:** Here in Pennsylvania, you recognize the importance of container weights, and have enacted local laws to address how heavy containers should be handled. Internationally, we are just now getting to the point of requiring container weight verification. I am pleased to note that a substantial improvement to container safety was recently advanced at the IMO with an agreement that all loaded containers will be required to have their weight verified before vessel loading – a long needed improvement. This requirement, when implemented in 2016, should have no effect on U.S. exports, because OSHA regulations have required U.S. export shipments to be weighed before vessel loading for decades. The mandatory IMO regulation will improve the safety of container moves elsewhere in the world, however, including U.S. import containers. There will no longer be any excuse for carriers, truckers or U.S. importers to have to address unexpected overweight container safety problems, fines and liabilities once this rule is implemented.

Most responsible shippers, including U.S. shippers, have supported this international container weight verification requirement. After all, U.S. export containers are already subject to a requirement to be weighed – which has caused no delay or problem for export commerce, and I have yet to meet an importer that didn’t want to know the actual weight of the cargo shipment that it was going to receive.

Finally, with respect to safety, I would simply note that there is a rising level of concern amongst ocean carriers about safety incidents involving dangerous goods. The incidents can arise from various causes, including improperly declared goods, improperly packed goods, or outright misdeclaration. As ship sizes increase, the amount of cargo put at risk by such incidents causes increased concerns as well. While most DG shipments do not present safety problems, the number of incidents and the growing concern about their consequences is likely to lead ocean carriers to focus more intently on ensuring the safety of such commerce.

**Transportation Infrastructure Funding**

Finally, let me comment on a topic that always arises at gatherings like this – transportation infrastructure financing.
Where critical transportation infrastructure is privately owned and operated, you generally see adequate levels of investment and planning for the future. Ocean carriers, railroads, and port terminals engage in sound planning and capital investment, even though government permitting processes and delays can delay and frustrate timely project construction.

With respect to critical transportation infrastructure that is government owned, such as locks and dams, harbor channels, and public highways, delay and frustration will probably continue to be prevalent in the United States. Transportation infrastructure funding from the federal government currently seems likely to continue with little fundamental change. Those in government who want to spend more on such infrastructure generally don’t identify how to pay for the increased costs. And even when industry – almost unanimously – says “raise the gas tax” in order to finance more highway infrastructure construction, the Administration and the Congress cower in the corner and perpetuate the status quo.

The federal highway trust fund is projected to run out of money in 2015, meaning Congress will have to devise some kind of “fix”, but there is little evidence to date that it will enact a significantly different long term federal funding strategy. Those states that need more revenue for highways will probably continue raising state gas taxes or finding other sources of revenue when they need to expand funding for highways in their states. Harbors will continue to be dredged, but more slowly than some ports would like, and some of the harbor dredging “user fee” revenues in the harbor maintenance trust fund (HMTF) will likely continue to be diverted to pay for other government programs. Dramatic changes are not currently visible.

Some proposed changes could make matters worse. For example, the Port of Seattle for years has been unhappy that importers using that port pay more in harbor maintenance fees than the Port receives for dredging. The Port believes it is unfair for the nation’s law to make Seattle a “super donor” port. Seattle’s proposed solution and way to end its status as a “super donor port”, however, is to inflict “super donor port status” on Prince Rupert, Vancouver and Halifax and to tax Canadian and Mexican commerce that never touches a U.S. port for the purpose of funding U.S. ports. The logic is elusive, at best.

There are many ports that need this national dredging fund and national tax for their continued operations. For example, the annual maintenance dredging costs for the main channel from Philadelphia to the sea is roughly $20 million. A civil war amongst the nation’s ports over redesigning the harbor maintenance trust fund is not an attractive scenario. The good news is that Congress is on the verge of passing a bipartisan Water Resources Development Act (WRDA). It is “good” news not only because it demonstrates that the two house of Congress and the two political parties can in fact work together and find acceptable
ways to address the nation’s needs, but that the bill seems likely to give ports some additional flexibility to access HMTF funds for a broader range of projects than are currently allowed.

**Looking Towards 2014**

As we start to close out 2013 and look ahead to 2014, what do the likely trends seem to hold for maritime transportation? Let me offer a few brief, closing assessments:

1. **Industry Investment:** There will be continued industry investment in capacity, facilities and equipment to meet the present and future needs of efficiently moving the world’s international trade.

2. **Competitive Market:** There will continue to be highly competitive market conditions that will cause carriers to continue to focus on lowering their operating costs and improving their efficiency.

3. **Increasing Environmental Regulatory Costs:** Costs of environmental compliance will increase. Low sulphur fuel requirements in ECAs and installation of ballast water treatment technology will be among the near term cost increases, but the biggest cost challenge for the industry and its customers will be the scheduled global IMO fuel standards of 2020 – costs that will not only drive substantially higher fuel bills and freight rates, but will require the industry to seek every practical means possible to improve its energy efficiency.

4. **Customs and Security:** The maritime and cargo security regime in the U.S. continues to appear relatively stable, effective and responsive to both trade and security imperatives, with Customs automation of export data filing requirements being an active agenda. In Europe, traders should expect significant changes to the European Union’s advance cargo data filing requirements to be announced in 2014.

5. **Infrastructure Funding:** The U.S. federal government will continue muddling along. Private industry will continue investing in private infrastructure. States will be the likely source of increased or innovative financing of public infrastructure.

**What does this mean for Philadelphia?**

The liner shipping business will continue to be challenging. Carriers will have no choice but to continue to look at improving their efficiency and costs of operation, as they can’t control the market forces that drive rates.
Delaware River ports are the fifth largest port complex on the U.S. East Coast for containerized imports (after NY/NJ, Savannah, Norfolk, and Charleston), in significant part because of their recognized advantages in handling imported food products – both fresh and frozen. They are ninth for containerized exports. So, there is room for growth.

The 45 foot channel being completed will certainly help the Port of Philadelphia’s competitiveness, but it will provide no competitive advantage because New York, Baltimore and Norfolk have deeper draft. The Port’s geographic proximity to a very large percentage of the nation’s population is a strong marketing point, but other ports’ rail connections are being improved as well. The good working relationship between U.S. Customs and Border Protection and the industry in Philadelphia is an asset that is important to continue. The productivity of the port’s marine terminals will continue to be an important factor to shippers’ and carriers’ choices. The recent ILA strike in Baltimore is the kind of “black-eye” that no port needs in this competitive environment.

The fact is that whether you are an ocean carrier, a port facility, or a business that supports maritime commerce, you are on a never ending treadmill to improve your service and to improve your efficiency, because if you don’t, there are plenty of competitors happy to try to take your business.

There aren’t many businesses that can claim to be more competitive than international shipping. There also aren’t many businesses that offer a more important critical infrastructure and set of services to the American economy than shipping. There aren’t many industries that touch as many people’s livelihoods as the transportation industry does – even if those people don’t think about the industry.

As I noted at the start of my remarks, this is not an industry of quitters. It is one of fighters. It is one of innovators. And while we should not expect anyone to pat us on the back and tell us how wonderful we are or how under-appreciated we are, we should take a deep breath every once in a while and recognize that what this industry does really matters – not just to Philadelphia, but to the country. And doing something that matters is what makes a life fulfilling.

I would like to thank the Philadelphia Regional Port Authority and the Philadelphia World Trade Association for your continued efforts to making the local community and government decision makers aware of the industry’s importance and contributions. Thank you for allowing me the privilege of addressing you today.

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