

FINANCING OPPORTUNITIES IN THE AMERICAN MARKETS: CAPITALIZING ON POSITIVE FUNDAMENTALS

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Recent statements by a US based major tanker owner indicate he thinks the US markets show the greatest opportunity. It was a statement of which we think investors and lenders should take careful note. The purpose of this article is to provide investors, lenders and shipowners with an overview of US markets, and show why a tight supply/demand balance, when coupled with high barriers to entry, makes this market among the most attractive in the world.

The US marine industry can be divided into two broad categories. First, there is the US Domestic Trade fleet which that serves the United States domestic maritime trade—that is, trade from one US port to another without foreign ports. It is covered under the United States Merchant Marine Act of 1920, otherwise known as the “Jones Act.” Second, there is the US Flag foreign trading fleet. This article is intended to give lenders, investors, shipowners and shipyards a sense of this bluewater domestic fleet

profile and how it fits into the marketplace. It may also spark a few ideas for those interested in pursuing opportunities in a niche market within the world’s largest economy. The brown water fleet, which includes coastal towing, inland waterways and short sea trades, is not covered in this article because of the stark differences in credit, collateral and market fundamentals from the blue water fleet.

It is a small fleet in the global sense of shipping

(Table 1): the US blue water fleet, on average, represents less than 2% of the worldwide fleet. If the measure were of fleets substantially influenced by interests located in the US, regardless of flag, the percentages would show that the US is the most influential shipping center in the world.

The US Domestic fleet is naturally subdivided into three principal sectors: tankers, dry bulkers and container ships. The RORO fleet is generally

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US Domestic Fleet vs. Global Merchant Fleet

Type	Ships	X 1,000 DWT	Of Global Fleet by Number	Of Global Fleet by Capacity
Crude Carrier	26	3,740	1.43%	1.33%
Product Carrier	43	1,802	3.05%	2.96%
Chemical Carrier	11	404	0.92%	1.10%
Total Tanker	80	5,946	1.81%	1.57%
Dry Bulk	72	2,509	1.19%	0.71%
Container		64,597 TEU		0.77%

Source: Colton & Company and Lloyd's Shipping Economist

TABLE 1

within the container fleet, as most of these ships are container ships with RORO capacity.

One of the interesting aspects is the distribution of

the US fleet across small, medium and large ship sizes (Figure 1). Nearly 75% of the fleet (in number of ships) is comprised of vessels under 50,000 DWT. The US fleet only has two

vessels in excess of 200,000 DWT.

Why are we interested in such a small portion of the global fleet? It is because it reveals some interesting insights when relating the sheer immensity of the US economy, shipping and how the global economy works. It is a fleet that is consolidated, and is shrinking in relation to the global fleet even though it has a preferential access to a large supply of cargo.

The United States is the largest world economy and has a high component of physical trade and industrial

capacity. Energy is the most graphic example: The US is the third largest producer of crude in the world (9.9%), behind only Saudi Arabia (11.5%) and the FSU (10.7%), and is the largest consumer of crude in the world. The US is the largest producer of natural gas and coal. In the case of coal, the US is not even rivaled by the number two China. The US has the third largest geographic area after Russia and Canada, and the third largest population after China and India. The adjusted per capita GDP is second only to Luxembourg. The US represents approximately 20%

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THE JONES ACT
 The US Flag Domestic Trade fleet is a national flag, commercial shipping fleet regulated according to the Merchant Marine Act of 1920, or the "Jones Act." It requires that vessels trading between US ports be built in the US, operated by US companies, and crewed by US citizens. When the act was created during World War I, the notion was primarily to provide a built in fleet for the government in times of conflict. There are no subsidies provided for construction or operation, unlike the US Flag foreign trade fleet.

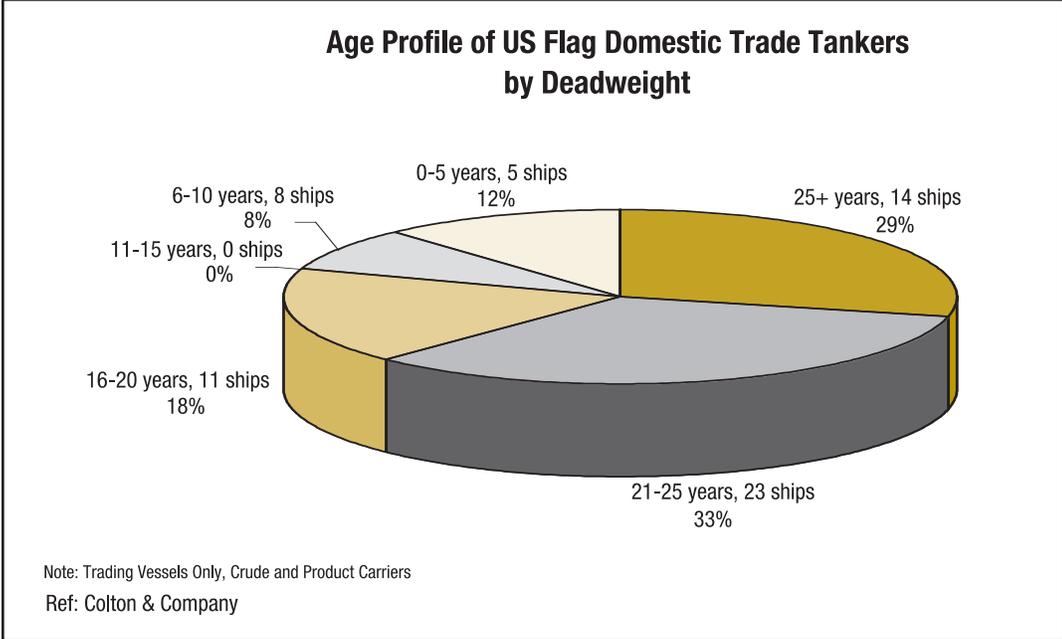


FIGURE 1

of the global GDP and 25% of the global maritime economy through associated activities.

Why should the world's largest economy with an overwhelming trading component have such a weak domestic maritime component? It is rooted in the US's ability to create efficient solutions and use the global marketplace to address these apparent inequities in domestic shipping with its economy. The United States also has an underlying infrastructure of railroads, pipelines, roadways and inland waterways that reduces the need to use blue water shipping. The US has the highest average density of cargo transport on railroads of any nation on earth and one of the most extensive inland waterway networks to be found.

For instance, Memphis is 400 miles from the ocean and is in the top 20 largest ports in North America.

Even though it is not in the scope of this article to make suggestions, it should become apparent that there is an opportunity for investing in the US shipping market. The opportunities

range from the ports and terminals side to investment and operation of ships under a variety of US flag programs such as Jones Act, Title XI, MSP (Maritime Security Program), passive investment, or becoming active in creating expanded marketplaces that naturally exist, but are not flourishing for one reason or another.

US and foreign built ships with US or foreign ownership may be operated in the foreign trade markets with a US flag. While there are many national flag requirements on a corporate and operating level, the return

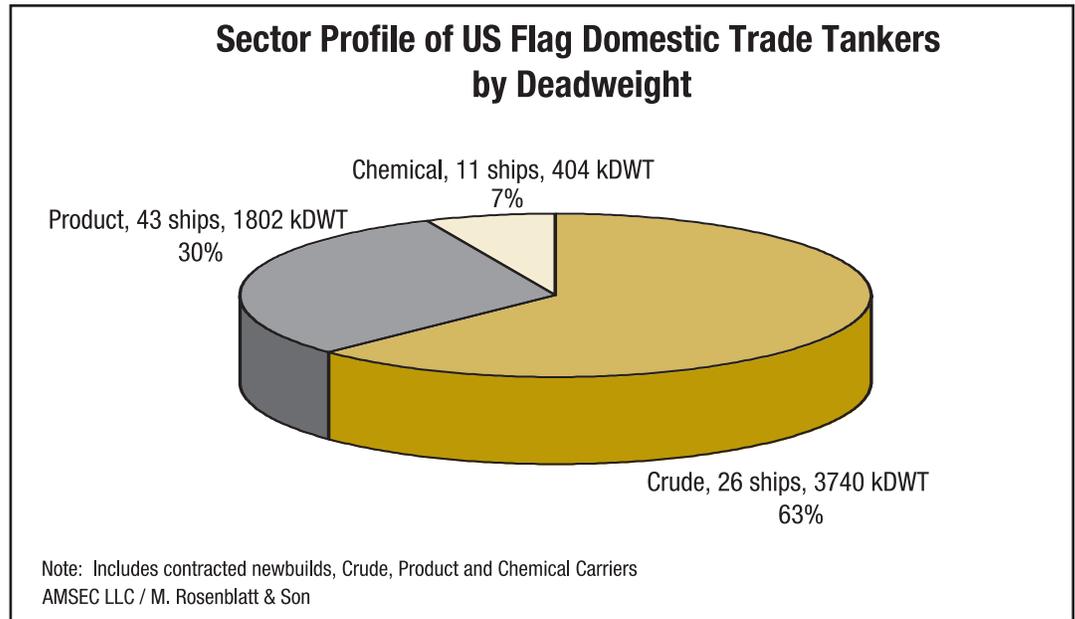


FIGURE 2

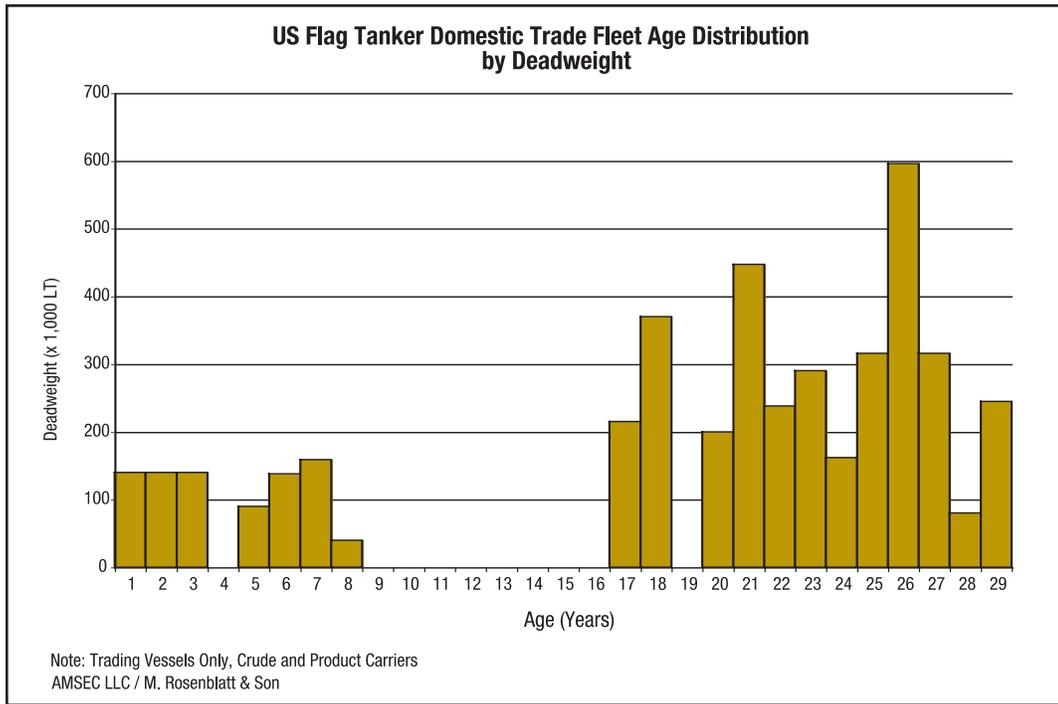


FIGURE 3

includes the ability to gain a preference for US government cargoes that usually command a hefty charter premium.

There are other programs, including the Ready Reserve Fleet, Maritime Security Program, Title XI Financing, salvage conversions and the like, which are associated with the US flag shipping regulations but are outside the scope of this article.

This article covers Jones Act, or the US domestic trade fleet that is operating for commercial business. Any material changes in the Jones Act could substantially change the analyses and conclusions laid out in this article.

REPLACING AN AGING FLEET

As discussed above, the US fleet is aging in all sectors. With all else status quo, there is a baseline need to replace the Jones Act fleet assuming the ultra conservative position of zero growth, constant demand, no substantial changes in the corporate/business environment and no substantial changes in regulation. We expect a realistic requirement of 2.0 MDWT of tankers based on a regulatory driven basis by 2010, and 2.5 MDWT of vessels under old age retirement and phase out programs. This represents 34% and 42% of the current Jones Act tanker fleet respectively. Even then, Jones Act ships will be forced to perform longer than equivalent ton-

nage in the global market.

Older ships, no matter what the maintenance practices employed, eventually cost substantially more to maintain and repair than equivalent new ships. Sources of spare parts disappear, commonalities dwindle, steel corrodes and cracks, the ship gets bumped and dinged, mechanical systems need extensive overhauls, additional regulations add equipment, and the list goes on. In our estimates, we have used a 30-year life for seagoing vessels and a 35-year life for the Laker fleet. This is a generous allowance for a worldwide trader, but the minimum to be considered for a Jones Act vessel given the current fleet distribution.

Another matter that may accelerate building is the propulsion plant distribution. A large quantity of the Jones Act fleet is steam driven. At some stage, the seafarer's pool, support industry evolution and higher fuel consumption will make the continued use of steam a practical impossibility.

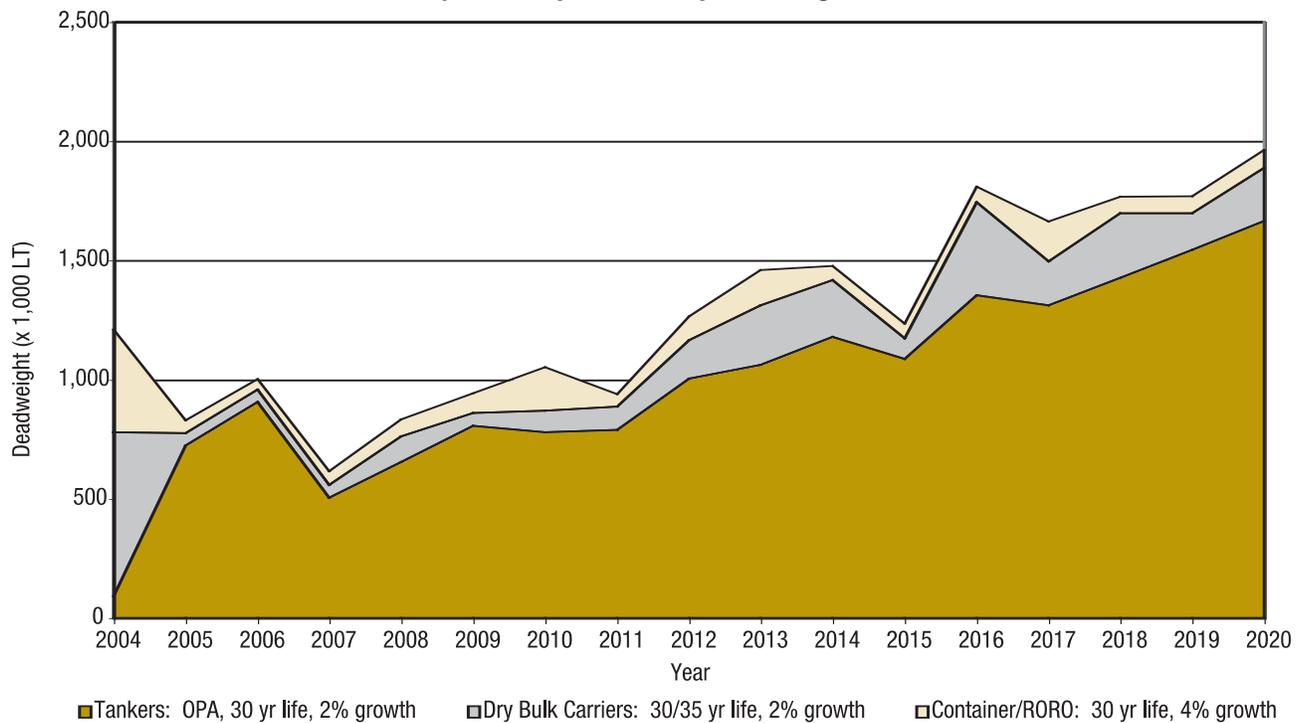
Other regulations may finally force certain vessels out. These include, but are not limited to, ballast water management, shore power, clean air emissions and ship scrapping. We do not believe any single regulation will force out a substantial part of the fleet save for age restricted types such as OPA—even then, there are companies that have taken the initiative to convert single hull vessels to double hull vessels.

All in all, the phase out and replacement pressures are severe from the owner/operator side and should be appealing for the shipyards. But, the signs of the Jones Act industry's adaptation are evidenced by the few new buildings delivered in fits and starts over the past several years after a dormancy of commercial building in the late 1980s to late 1990s.

MARKET DEMAND

In our estimates, we have used the annualized growth rate of 2% for tanker trades,

US Flag Domestic Fleet Replacement Schedule Projected Requirements by Deadweight



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2% for bulker trades and 4% for container/RORO trades. This is based on an average projected growth of the US economy at 2.4%, and population and domestic pressures surrounding roadway and railroad usage. In any event, these are conservative estimates. For pure replacement estimates, we used a zero growth rate. The shipping markets are mature in nature, but the effects of compound growth are unmistakably real.

TANKERS: WHO BLINKS FIRST

The Jones Act tanker fleet consists of several segments: TAPS trade (Alaskan crude), coastal product trade, coastal crude trade, coastal

chemical trade and a significant group trading globally under charter to the US Government. The crude fleet represents around two thirds of the tankship fleet, product carriers represent a little under a third, and the chemical carriers represent around 7% on a deadweight basis (Figure 2). There is a preponderance of product carriers on a relative basis as demonstrated by the fact that the US product carrier fleet is around 3% of the global product fleet—instead of the average 1.5% of the global fleet. This is especially impressive in light of the significant TAPS trade.

Chemical tankers have not been included in much of

the analysis, but they do represent a coastal trade with around 400,000 DWT which is comprised of about 10 tank vessels.

The age distribution is equally interesting (Figure 3). It is made up of a group of vessels less than 10 years old (20% of the deadweight) and ships in excess of 15 years old (80% of the deadweight). This has implications on fleet renewal or cargo transport alternatives to the US domestic fleet that are being addressed by some new builds for the TAPS trade, newbuild ITBs, and conversions of ITB barges for OPA conformity.

Ship operators, shipyards, charterers and other principals frequently indicate that the Jones Act tanker fleet is in need of renewal. Looking at the fleet profile, this is patently clear (Figure 4). But the supply of US tonnage is limited by the many difficulties for fleet renewal, including apparent lack of moderately priced shipbuilding capacity, a dearth of financible charters from creditworthy counter parties, tax structures facing the companies, alternative sources of transportation and extremely high operating costs for US flag shipping. This series of impediments will likely result in various alternatives to be considered, including more

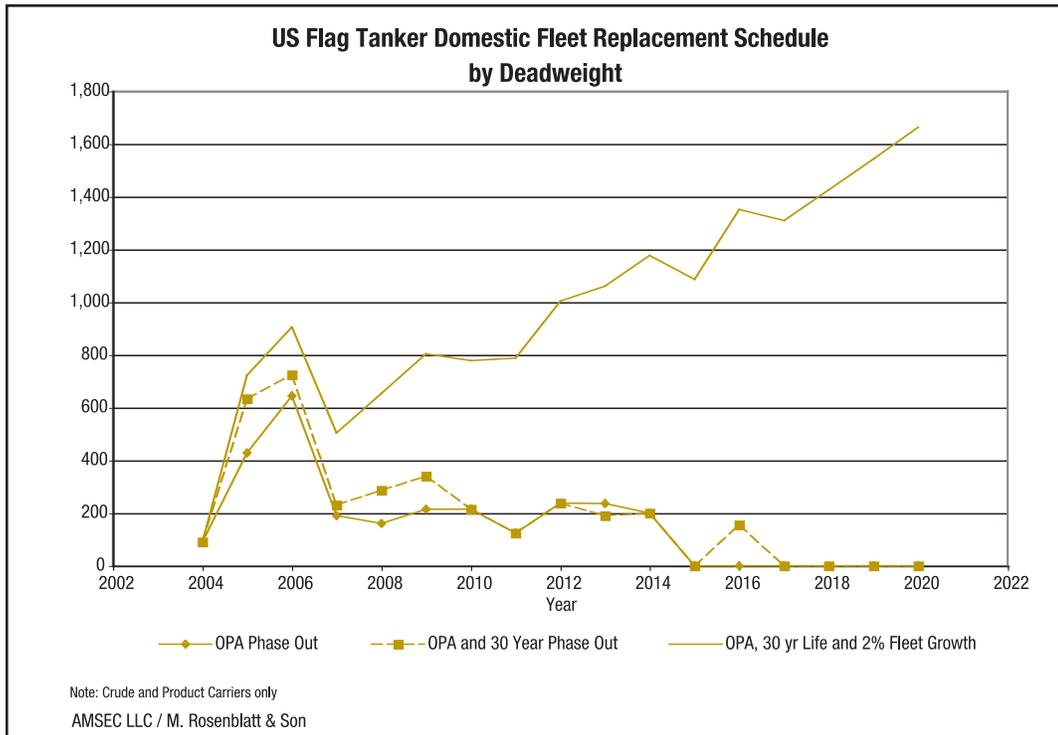


FIGURE 4

pipeline usage, more direct importation from overseas, and/or possible regulatory changes in liability, construction and investment environments.

In the absence of the above mentioned alternatives being implemented and demand remaining constant, the shipbuilding industry will need to be engaged within one to two years to keep up with phase out rates with an early peak in 2006 (600,000 DWT). If the fleet size is to mimic the assumed increase in demand of 2% per year, an initial peak of 900,000 DWT constructed in 2006 will be followed by a growing need for ships starting at 500,000 DWT of new builds per year in 2007.

Conclusion

The pressures may cause a significant shift in the Jones Act tanker environment within a period of 18 months from the present, largely driven by phase out requirements and an

assumption of near constant demand. The shift appears virtually assured but in what direction and from which pressures are not clear. Ships will be ordered, the climate will change, or charterers will develop different

cargo trade patterns.

CONTAINER SHIPS: WHERE THE ACTION HAS BEEN

Thanks to Carlyle Group's high profile acquisition of Horizon Lines (formerly CSX Lines), and Matson's high profile purchase of two 3000 TEU vessels from the Kvaerner Philadelphia Shipyard, the US flag containership market has been relatively active. The US domestic fleet of container ships is made up of generally smaller vessels by today's standards (Figure 5). In the early 1990s, some of these vessels would have been considered large container-ships, but are now midsize. The first 8,000 TEU vessel has now called on a US port, with another five or more to follow in container string services. Accordingly,

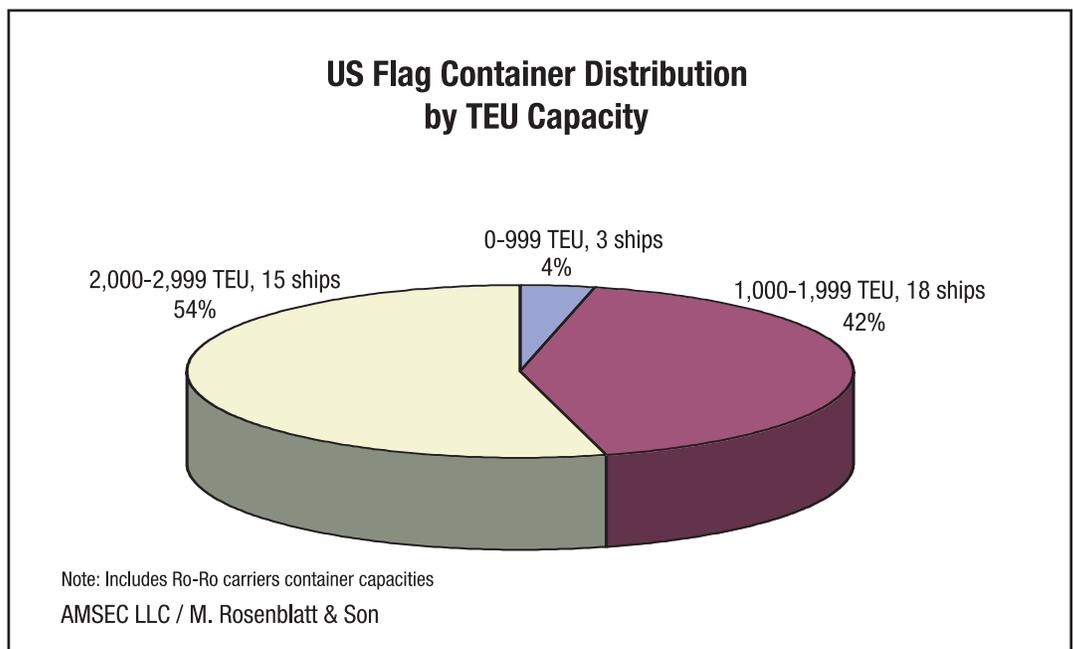


FIGURE 5

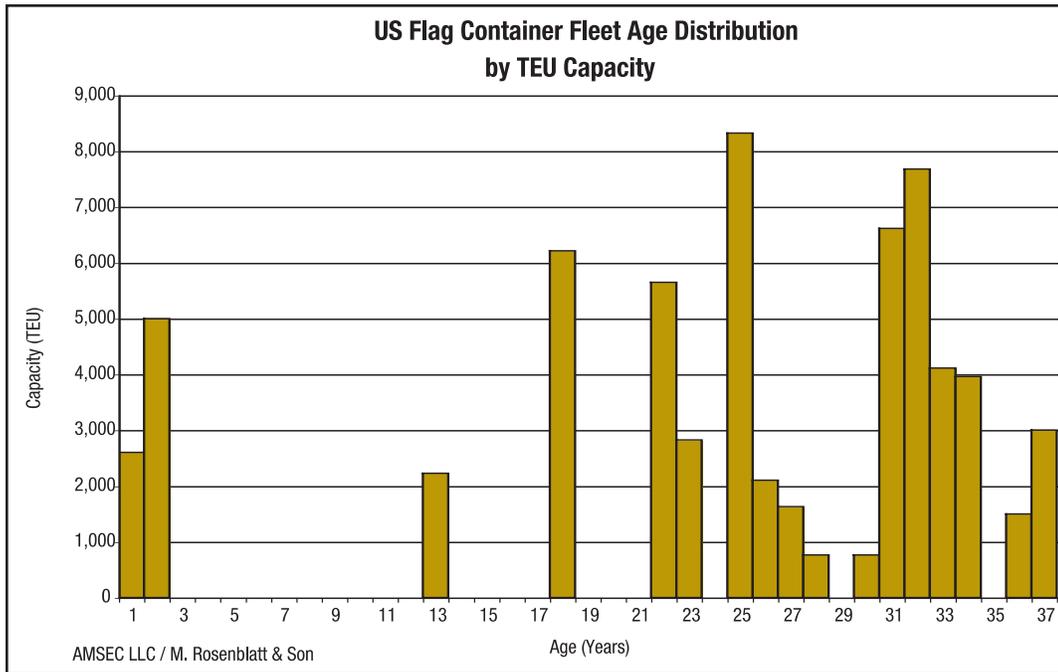


FIGURE 6

the US fleet may be described as being composed of smaller to medium size tonnage capable of worldwide service.

Another characteristic is age: the fleet is exceptionally old, save for a small handful of new container-ship and RORO/Container carriers that have been built in the past three years (Figure 6).

The worldwide fleet of containerships has witnessed skyrocketing charter rates over the past two years. There are varying market reports on the future of these vessel revenues, but most indicate that the rates will be reasonable for at least a few more years.

Where the US Flag differs from worldwide shipping in

its access to cargo and limited fleet capacity. The US moves a significant amount of cargo on its roadways, and this will only increase at substantial rates. Many studies cite a minimum growth rate of 4.5% per year (which will double the trade by 2020), but others

indicate 7-8% might be more in keeping with reality. Short sea shipping initiatives will only serve to improve the sector's lot.

Conclusion

The US Flag fleet will necessarily be replaced and expanded in one form or

another due to pressures on the roadways, US A.I.D./PL-480, rebuilding, and age consideration of the fleet. This rebuilding will begin in the near future, if it has not already been indicated with recent deliveries (Figure 7). The container fleet is not pressured by the OPA phase out limitations, just the effects of old age. The fleet is smaller than the bulker or tanker side, but has positive pressures in terms of need.

DRY BULK: WHO WILL PROFIT?

The need for the fleet is concentrated heavily in the Great Lakes fleet (74%) and the government hired fleet. As a whole, the bulker fleet is second only to the tanker fleet in terms of capacity, and is more or less the size of the high profile product fleet. It is more than dou-

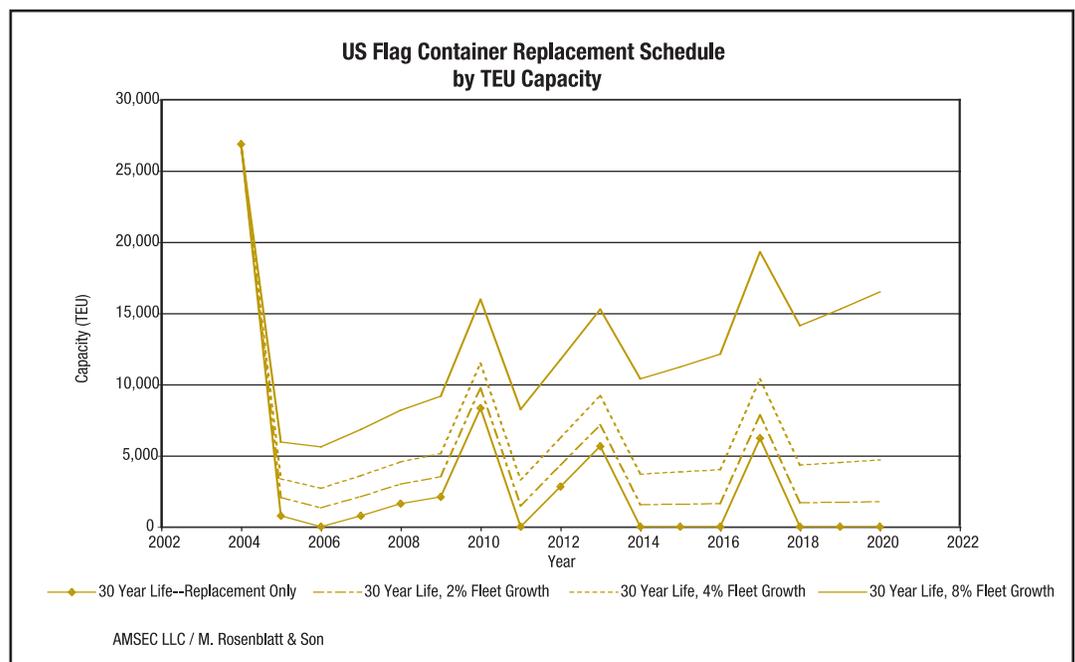


FIGURE 7

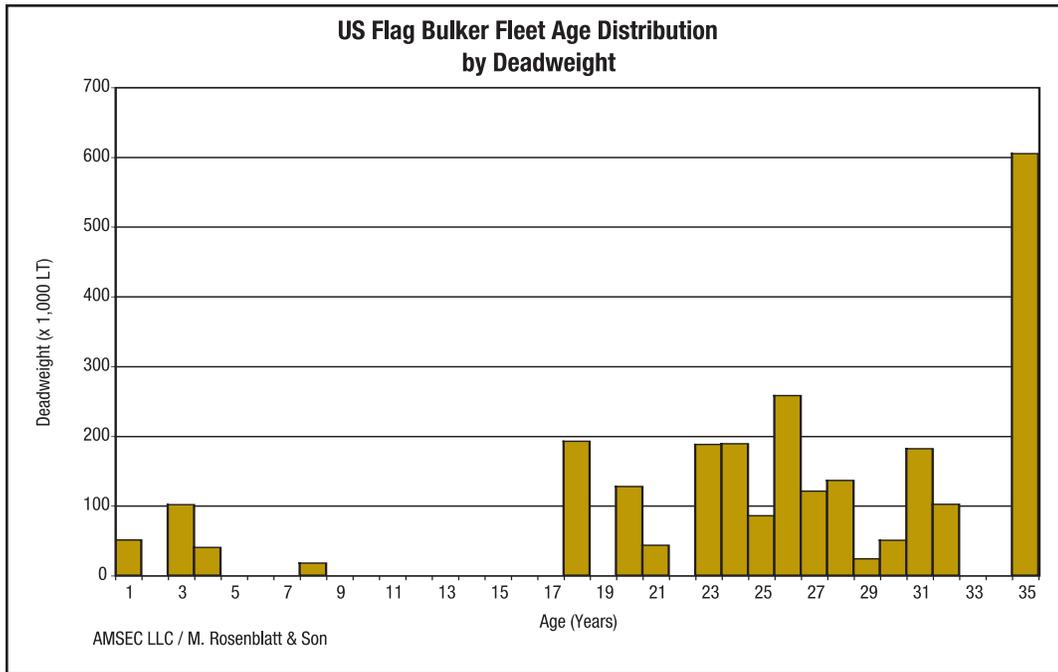


FIGURE 8

ble the size of the very high profile container/RORO fleet. When we look at the bulker fleet, it is heavily influenced by the dynamics of the Great Lakes fleet.

A glance at the age profile of the Jones Act fleet, the recent bankruptcy of Oglebay Norton, and the exit of another player leads one to believe that it is a business no profit-oriented company would want to enter. This is quite a different situation than the exceptionally high market the global dry bulk sector has been enjoying for the past year. The age profile is more fitting of a museum than a trading fleet—25% of the fleet is over 35 years old and only 8% is under the age of 10 (Figure 8). While old ships are, in and of themselves, not bad (in

this case, a testimony to the technical operations), a healthy population usually includes a reasonably equal distribution across all age groups. The fleet size distribution is typical of the world fleet in that there is a good mix of handysize, handymax and panamax type ships (Figure 9).

Ship scrapping considerations are most prominent in this sector due to the age of the vessels. Ship scrapping is a difficult issue in the United States as a result of regulations preventing the export of dangerous substances to other than fully developed nations. Older ships are filled with

asbestos, PCBs, mercury and other toxins. This makes ship scrapping a cost to an owner rather than a potential capital gain. Newer vessels, from around 1980 onward, have fewer of these dangerous substances none it all.

Other than the Great Lakes and some government trades, the United States currently exports and imports most of its dry bulk commodities to and from foreign nations on foreign flag ships. This is an indication that the market has adapted.

Conclusion

This sector is not faced with regulation mandated phase outs, but it is faced with effects of a very old fleet and regulatory considerations in disposing of the older tonnage. If reasonable assumptions of a constant

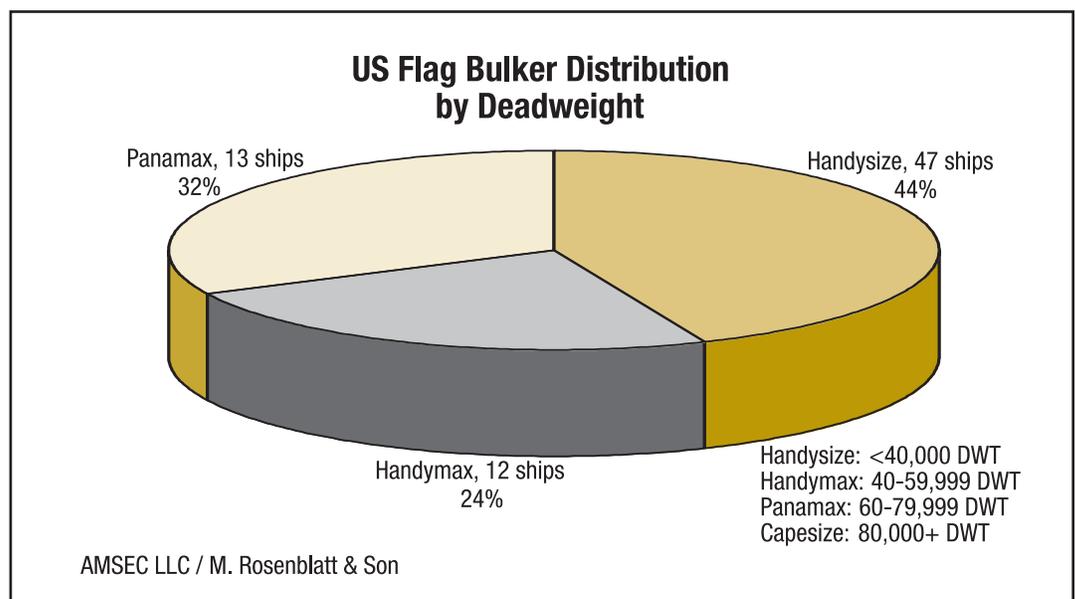
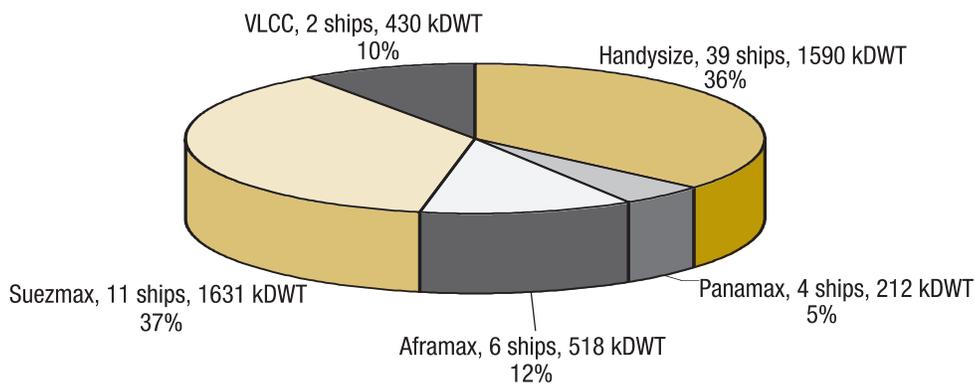


FIGURE 9

US Flag Tanker Domestic Trade Distribution by Deadweight



Note: Trading Vessels Only, Crude and Product Carriers
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FIGURE 10

market demand and a gradual replacement of the fleet are made, it is clear that new ships must be ordered in the near term.

SHIPYARD CONSIDERATIONS

The US shipyards, which must be used to build Jones Act tonnage, are divided into what are frequently called Tiers. Tier 1 shipyards are the large shipyards with heavy industrial capacity which can build large vessels (afamax and larger). Tier 2 shipyards are shipyards that have significant industrial capacity and can build up to a panamax size vessel. Tier 3 shipyards are smaller concerns that build small vessels and other craft. The Tier 1 shipyards are overwhelmingly defense contractors. Recent new-build experience at Tier 1 yards indicate very high prices on a global scale.

The Tier 2 shipyards include six or seven shipyards that have varying degrees of capability. Their market base is a combination of commercial and government work. Commercial work includes new buildings, repairs and significant offshore construction. This is the group that could likely produce most of the Jones Act fleet based on the

ship sizes on a one-for-one replacement basis (Figure 1).

By definition, the Tier 3 shipyards cannot build the medium size or larger vessels. However, they are generally smaller firms that work in the offshore and commercial sectors with some government contracting work. They are efficient and produce vessels of suffi-

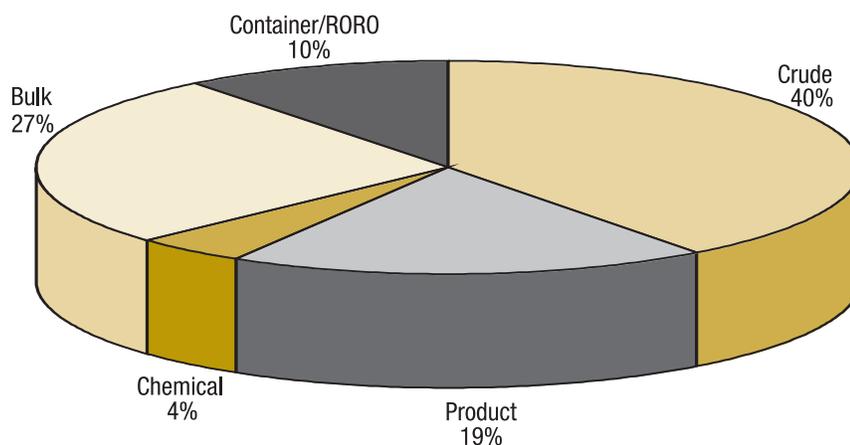
cient quality and low enough cost that they export offshore marine and offshore exploration and production equipment to the global market.

US shipyard prices and delivery times are acknowledged to be very high when compared to similar tonnage from Far Eastern and European yards. For instance, a 45,000 DWT product carrier is frequently estimated to be in the 80-100 M\$ per copy price range, whereas an equivalent vessel from the world marketplace is in the range of 35-40 M\$ per copy.

OPERATIONAL CONSIDERATIONS

Operating Jones Act tonnage is acknowledged to be very expensive when compared to the global fleet. It stems principally from three areas: cost of ships, crew

US Flag Domestic Fleet by Deadweight



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FIGURE 11

costs and liability.

The cost of ships is addressed in the Shipyard Considerations. Crew Costs include higher wages than typically found in the global market, particularly for non-officer staff. In essence, it is commonly estimated that the operating expenses of a US Flag tanker are in the range of 15,000 \$/day in comparison to 7,000 \$/day for a well run foreign flag vessel.

CONCLUSIONS

Like the major tanker owner, we believe that there are potentially good investment opportunities within the US Flag market. But it will take some searching, development and patience. Unlike the global markets, the US fleets are consolidated, which makes the barrier to entry substantial in terms of competition.

Like shipping the world over, there are political

nuances and forces that cannot be disregarded. These include employment of the citizens in manufacturing or onboard vessels, government security for war efforts, government aid projects (the United States provides a great deal of aid relief all over the world that is delivered in the form of agricultural and petroleum goods) and a growing realization that trade is not necessarily services.

From a cargo standpoint, which ultimately drives the needs, we believe that the container/RORO sector may lead the way, followed by the tanker sector. The tanker sector is the one that is most exposed to trade changes initiated by charterers that can eliminate the need for Jones Act tankers. The tanker sector is also the one most pressured by mandatory phase-outs of elderly tonnage.

We see an event horizon of

around 18-24 months where major changes will necessarily happen to adapt to the present Jones Act situation largely propelled by the tanker phase-out requirements (Figures 4 and US Flag Domestic Fleet Replacement).

If the chasm between the principal market groups can close, government supports the notion of moving trade to the waterways from the roadways, and investors believe there is an opportunity in US shipping, then the fleet could grow to become one of the more dynamic fleets in the world. It all comes down to cargoes and capital working in a favorable environment.

SOURCES:

A variety of publicly available sources have been used in the formulation of this article. Principally: Colton & Company (www.coltoncompany.com) for underlying US Flag fleet data. Journal of Commerce for domes-

tic growth rates and market forces; Lloyd's Shipping Economist for a global shipping fleet data; International Energy Agency for energy related production, consumption and trade data; Intertanko for tanker related data; Wall Street Journal for general trade and economic estimates and climates; CIA Factbook for national statistics; Annual Reports and SEC Filings from various companies

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