

SHIPPING STATISTICS AND MARKET REVIEW 2016

Volume 60 - No. 7

Analytical Focus

- World Merchant Fleet
- World Tanker Market
- World Bulk Carrier Market
- World Container and General Cargo Shipping
- **World Merchant Fleet by Ownership Patterns**
- World Passenger and Cruise Shipping/
ISL Cruise Fleet Register
- World Shipbuilding and Shipbuilders
- Major Shipping Nations
- World Seaborne Trade and World Port Traffic

■ ISL Shipping Statistics and Market Review (SSMR)

Volume 60 - 2016

Published and distributed by:

ISL Institute of Shipping Economics and Logistics
Universitaetsallee 11-13
28359 Bremen, Germany

Orders and subscription:

Phone: +49/421/220 96-0
Fax: +49/421/220 96-55
eMail: subscription@isl.org
Web: <https://shop.isl.org>

Subscription prices (Net price):

ISL Shipping Statistics and Market Review (SSMR) Vol. 60 2016

Print copy	535.- €
Online version	450.- €

ISL SSMR Vol. 60 2016 - Single issues online version

No. 1/2	World Merchant Fleet	125.- €
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Print copy	755.- €
Print copy + digital version (SSYB on disk)	775.- €
Online version	635.- €

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Cancellation 3 months before end of calendar year.*

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ISL Market Review

TOTAL WORLD MERCHANT FLEET

At the beginning of 2016, the global merchant fleet comprised 41,822 vessels (merchant vessels above 1,000 gt) with a combined 1.7 billion dwt, up 3.3 per cent year on year in tonnage terms. Within 15 years, the world merchant fleet's tonnage has more than doubled.

Despite occasional initiatives by some shipping nations to promote their national flags, the proportion of vessels flying a flag that is different from the nationality of their owner (foreign-flagged vessels) has grown continuously from 22 per cent in the 1970s to 75 per cent at the beginning of 2016. Almost 42 per cent of this foreign flagged tonnage is registered in only three major open ship registers, namely Panama, Liberia and the Marshall Islands.

Looking at the ownership, the world shipping scene is controlled by a few shipping countries. The three largest shipping nations control 45 per cent of the world merchant fleet tonnage. Greece remains the largest owner country globally, accounting for 19 per cent of tonnage in the fleet, followed by Japan (14 per cent) and China (12 per cent).

Top ten open registry flags close to one billion dwt

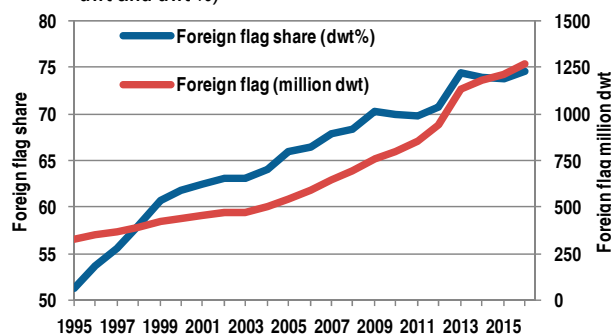
The flag-related ownership analysis shows an increasing concentration on the top open registry flags. At the beginning of 2016, 1.27 billion dwt equal to 77.2 per cent of the total merchant fleet tonnage were registered under foreign flags – that is, the nationality of the vessel's owner was different from the flag of registration. Five of the top ten flags of registration in the world merchant fleet are major open registries (Panama, Liberia, Marshall Islands, Malta and the Bahamas).

At the start of 2016, tonnage registered under the top ten open registry flags totalled 932 million dwt, compared to 528 million dwt at the start of 2007 (see Table 2). Panama remains the world's largest flag state with 324 million dwt (19.0 per cent of the world's tonnage). However, the yearly growth rate since 2007 is one of the slowest among the top flag states. Liberia followed in second place with 201 million dwt (12.0 per cent) and the Marshall Islands with 193 million dwt (10.2 per cent). Together, these top three registries accounted for 42 per cent of the world merchant fleet's tonnage (ships of 1,000 gt and over). During the period 2007-2016, the average yearly tonnage growth of the top 10 open registries reached 6.5 per cent per year, whereas the tonnage growth of the Marshall Islands registry is remarkable with an additional 139 million dwt in the mentioned period (15.3 per cent p.a.).

Greek ship owners boost Marshall Island registry

Table 2 illustrates the considerable growth of the RMI fleet since 2007 with an average annual growth rate of 15.3 per cent. According to Clarkson, the Marshall Islands ship registry is since 2009 the third largest in the world. Last year, the RMI fleet increased by 14.5 per cent (24 million dwt), which was the largest percentage growth among the top ten registries. At the start of January 2016, the registry comprised over 2,600 merchant vessels with a combined 193 million dwt. The RMI Registry has the youngest

Fig. 1: World merchant fleet – Development of foreign flag and its share on world fleet as of January 1st, 1995 - 2016 (Million dwt and dwt-%)



Source: Up to 2011 based on IHS Fairplay, since 2012 on Clarkson Research Services Limited (CRSL).

Tab. 1: World merchant fleet by ship type and according to national and foreign flag as of January 1st, 2007, 2012, 2015 - 2016 (dwt %-share, mill dwt)

Ship type	National flag dwt %-share				mill dwt	Foreign flag dwt %-share				mill dwt
	2007	2012	2015	2016		2007	2012	2015	2016	
Tankers	32.7	31.3	28.3	28.4	168.0	66.2	68.7	71.7	71.6	424.7
Bulk carriers	25.8	25.7	22.4	22.3	167.6	72.7	74.3	77.6	77.7	583.0
Container	32.4	29.9	24.8	23.5	57.1	66.6	70.1	75.2	76.5	186.5
General cargo	37.0	37.0	35.4	34.7	37.0	59.4	63.0	64.6	65.3	69.7
Passenger	54.1	49.7	21.3	50.9	3.1	41.6	50.3	78.7	49.1	3.0
Total	30.7	29.2	26.3	25.5		67.8	70.8	73.7	74.5	
mill dwt	307.4	388.3	433.6	432.8		648.0	939.5	1214.3	1266.8	

Source: ISL, based on Clarkson Research Services Limited (CRSL).

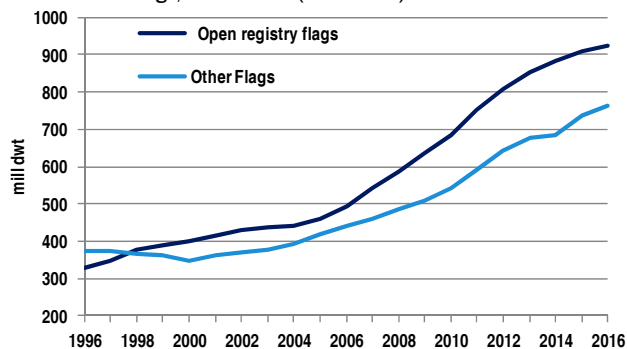
Tab. 2: Development of major open registry flags as of January 1st, 2007, 2012, 2015, 2016

Flag	mill dwt				% -change over prev. year	av. yearly growth in %	
	2007	2012	2015	2016		'07-'16	'12-'16
Panama	230.2	322.5	342.6	324.3	-5.4	3.9	0.1
Liberia	103.1	180.3	198.8	201.0	1.1	7.7	2.7
Marshall Isl.	53.4	116.8	168.6	192.8	14.4	15.3	13.3
Malta	40.1	68.0	81.5	94.5	16.0	10.0	8.6
Bahamas	52.4	61.8	63.3	67.0	5.8	2.8	2.0
Cyprus	30.2	32.8	32.9	32.5	-1.3	0.8	-0.2
Antigua & Barbuda	10.2	14.4	12.6	11.4	-9.9	1.2	-5.8
Cayman Islands	4.7	4.0	4.4	4.0	-8.3	-1.7	0.0
Gibraltar	1.6	2.4	3.2	3.3	4.4	8.5	8.8
Vanuatu	1.9	2.1	1.6	1.5	-5.9	-2.4	-6.9
Total	527.8	805.1	909.6	932.3	2.5	6.5	3.7

Note: Hong Kong and Singapore are not in the list of "open registries" due to their high proportion of own tonnage

Source: ISL, based on Clarkson Research Services Limited (CRSL).

Fig. 2: World merchant fleet tonnage by top ten open registries and other flags, 1996-2016 (in mill dwt)



Source: Up to 2011 based on IHS Fairplay, since 2012 on Clarkson Research Services Limited (CRSL).

overall fleet with an average age of 7.6 years. The impressive development of the RMI fleet is largely attributed to its Greek ship owners. Nearly 45 per cent of the bulk carriers in the RMI fleet are Greek-owned vessels. At the start of 2016, the Greek-owned fleet consists of 803 RMI flagged vessels totalling 59 million dwt. Besides Greece, mainly U.S. (27 million dwt), Korean (17 million dwt) and German (13 million dwt) ship owners use the flag of the Marshall Islands.

Greece still by far the leading owner country

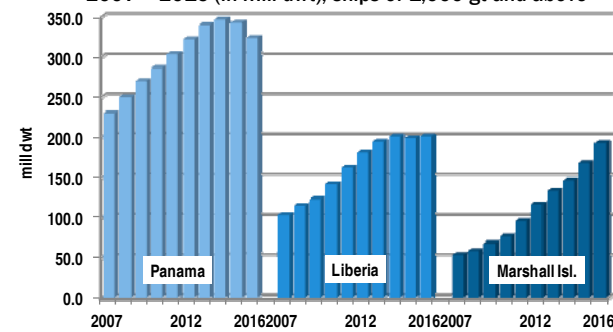
At the start of 2016, the top 10 leading shipping countries represented nearly three quarters of the total world merchant fleet (based on dwt). The top 10 shipping nations have an especially strong position in the dry bulk carrier and container segments with shares of over 70 per cent in both markets. The Japanese, Greek and Chinese ship owners alone hold 59 per cent (447 million dwt) of the world bulk carrier fleet in terms of deadweight tonnage. Greece is still the leading shipping nation with a controlled tonnage of 324 million dwt, at a distance followed by Japan (244 million dwt), China (203 million dwt), Germany (121 million dwt) and South Korea (82 million dwt). Over the last decade, Japan, Germany, Norway and the United States lost market shares, while especially China and Greece improved their positions. Since the start of 2007, the Greek owned fleet grew by 7.4 per cent per year. In absolute figures, it was the strongest growth among all shipping nations: 154 million dwt since 2007. The German controlled fleet continues to decline, as the owned merchant fleet has shrunk for the third consecutive year and as of January 2016 it is down to 3,456 vessels with a combined 121 million, compared to 131 million dwt at the start of 2013. Five of the top 10 ship-owning countries are from Asia, four are European and one is from the Americas (see Table 3).

Development of the Greek owned merchant fleet

Almost one fifth of the world fleet capacity in terms of dwt belongs to Greek owners. Since the start of 2007, the size of the Greek-owned merchant fleet has grown by 90 per cent to 324 million dwt at the start of 2016 (see Table 3). This includes 1,531 tankers and 2,021 dry bulk carriers. This strong growth has been the result of a firm level of newbuilding deliveries to Greek owners and pronounced activities in the second-hand market. During 2015, a total of 202 new merchant vessels (1,000 gt and above) with a combined capacity of 15 million dwt entered the Greek-owned fleet, equivalent to a market share of 16 per cent of the global deliveries last year. Since 2007, over 2,000 new ships with a combined 180 million dwt entered the Greek-owned merchant fleet.

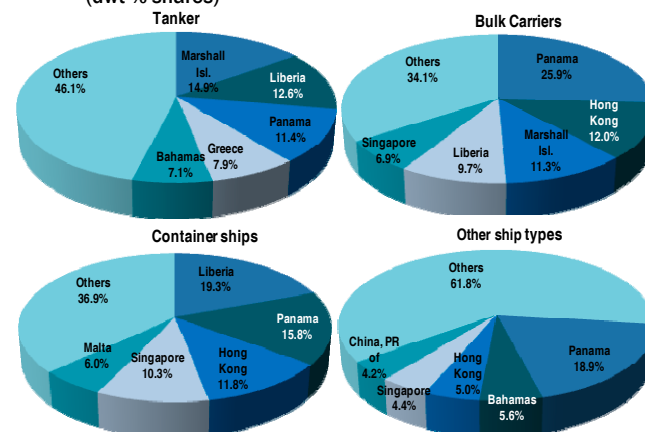
Furthermore, according to Clarkson, Greek owners acquired about USD 5 billion on the secondhand market in 2015. It is worth noting that Greek owners were responsible for around 38 per cent of dry bulk carrier tonnage purchased in 2015 and in the tanker segment, they also bought 25 per cent of the dwt capacity which was sold globally. In tonnage terms, bulkers and tankers account for 50 per cent and 41 per cent of the Greek-owned fleet, respectively.

Fig. 3: Tonnage development of top 3 registry flags as of January 1st, 2007 - 2016 (in mill dwt), ships of 1,000 gt and above



Source: ISL; up to 2011 based on IHS Fairplay, since 2012 on Clarkson Research Services Limited (CRSL).

Fig. 4: Favourite registry flags by ship type as of January 1st, 2016 (dwt %-shares)



Source: ISL, Clarkson Research Services Limited (CRSL).

Tab. 3: Development of the top ten countries of control as of January 1st, 2007, 2012, 2015- 2016

Country of control	mill dwt				%change over prev. year	av. yearly growth in %	
	2007	2012	2015	2016		'07-'16	'12-'16
Greece	170.3	217.1	308.1	324.4	5.3	7.4	10.6
Japan	147.0	209.8	242.2	243.7	0.6	5.8	3.8
China, PR of	69.1	115.6	189.8	203.1	7.0	12.7	15.1
Germany	85.3	125.5	123.6	120.8	-2.3	3.9	-1.0
Korea, Rep. of	31.7	54.5	85.2	82.0	-3.7	11.1	10.7
Norway	48.0	40.6	59.9	63.6	6.1	3.2	11.8
US	45.4	44.5	55.7	57.2	2.7	2.6	6.5
Singapore	24.9	35.2	55.1	55.8	1.2	9.4	12.3
Taiwan	24.9	37.7	45.3	47.6	5.1	7.5	6.0
Italy	15.4	24.4	41.9	46.3	10.7	13.0	17.4
Total	661.9	904.9	1206.7	1244.5	3.1	7.3	8.3

Source: ISL; based on Clarkson Research Services Limited (CRSL).

- ▶ **Sources:**
If not otherwise mentioned, the source for tables and figures is "ISL based on Clarkson Research Services Limited (CRSL)", please quote accordingly. In this chapter merchant fleet data refer to ships of 1000 gt and over.
- ▶ **Country of registration and country of control**
Country of registration indicates the country of the port of registry of a country (flag). The country of control indicates where the controlling interest of the fleet is located, i.e. the home country of the interests behind the primary reference company.
- ▶ **Major Open Registries**
Countries permitting the registration of ships owned by non-residents. In general, ISL figures on open registry flags are restricted to the top ten major flags: Panama, Liberia, the Bahamas, Marshall Islands, Malta, Cyprus, Antigua & Barbuda, Gibraltar, Vanuatu and Cayman Islands. (01.01.2016).

At the start of 2016, Greek ship owners are first in the tanker and bulk carrier segment, and second in the container sector. Furthermore, Greek owners have increasingly thrown an eye on the container fleet during the past years and pushed the Greek's share up to 10 % of the global capacity. The average age of the Greek controlled fleet in terms of ships now stands at 11.3 years, against 14.0 for the world fleet. Looking towards the future, Greek ship owners currently have contracts for 115 new merchant vessels (1,000 gt and above) with a combined capacity of 14 million dwt, equivalent to a market share of 13 per cent of the global newbuilding market.

Tankers: Marshall Islands the most popular flag

The Register of the Marshall Islands has a strong position in the tanker market for US (18 million dwt), Greek (17 million dwt) and Norwegian ship owners (11 million dwt).

Greece, the leading owner country in the tanker segment, uses mainly the national flag (43 million dwt), equivalent to 32 per cent of the Greek controlled tanker tonnage, followed by the Liberian Register (20 per cent) and the Register of the Marshall Islands (13 per cent).

Japanese owners follow in the second place. In early 2016, more than half of the Japanese tanker tonnage was registered in Panama (27 million dwt).

Dry Bulk Carriers

Meanwhile, Greek is also the leading owner nation in the dry bulk segment. Greek ship owners used mainly the flags of the Marshall Islands (24 per cent, 39 million dwt), Liberia (16 per cent, 25 million dwt) and Panama (10 per cent, 16 million dwt).

Just as in the tanker segment, Japanese dry bulk ship owners used mainly the Panamanian flag. With 104 million dwt, two thirds of the Japanese bulker tonnage are registered there.

Chinese foreign flag tonnage concentrates largely on Hong Kong (38 per cent, 49 million dwt) and Panama (14 per cent, 18 million dwt).

About 51 per cent of the Korean bulk carrier tonnage was registered in Panama (25 million dwt), and a further 21 per cent used the flag of the Marshall Islands (10 million dwt).

Fully cellular container ships

Liberia is the largest flag state for container ships. German container ship owners – leading in this market segment – registered nearly 44 per cent of their TEU capacity under the Liberian flag (2.3 million TEU). The flag was also popular among Greek ship owners (30 per cent equivalent to 0.6 million TEU).

The second largest containership register Panama is mostly used by Japanese and Chinese owners. About two thirds (0.8 million TEU) of the Japanese owned container fleet are sailing under the flag of Panama.

Fig. 5: Controlled fleet development of the top 5 shipping nations as of January 1st, 2007-2016 (dwt – yearly average growth)

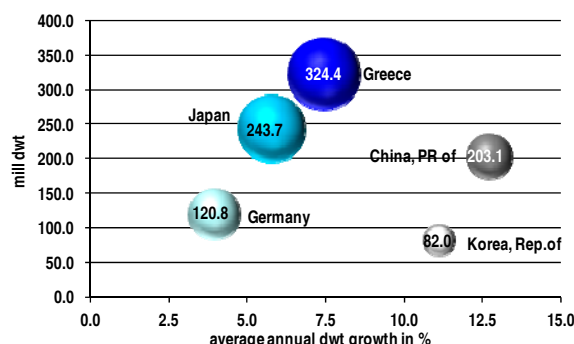


Fig. 6: Flag and ownership patterns of the tanker fleet at the start of 2016 (top 5 owner vs. top 5 flags in million dwt)

Flag	Owner Country					
	Greece	Japan	China, PR of	Norway	US	Other countries
Marshall Is.	16.9	3.2	1.5	10.8	17.8	39.4
Liberia	26.7	1.1	3.6	3.8	2.5	38.1
Panama	9.1	27.1	2.6	0.7	0.3	28.6
Greece	43.0					4.1
Bahamas	9.3	3.2		3.8	1.7	24.7
Other flags	29.7	8.9	34.9	16.2	8.3	Other / Other 411M dwt

Fig. 7: Flag and ownership patterns of the bulk fleet at the start of 2016 (top 5 owner vs. top 5 flags in million dwt)

Flag	Owner Country					
	Greece	Japan	China, PR of	Korea, Rep. of	Germany	Other countries
Panama	16.4	104.0	18.1	24.3	0.1	32.6
Hong Kong	0.7	2.0	48.5	2.4		36.6
Marshall Is.	38.8	4.7	1.5	10.1	3.4	26.6
Liberia	25.6	10.3	1.4		14.0	22.0
Singapore	0.8	11.3	11.0	0.2	0.6	28.3
Other flags	79.0	25.9	47.6	10.9	9.6	Other / Other 403 M dwt

Fig. 8: Flag and ownership patterns of the container fleet at the start of 2016 (top 5 owner vs. top 5 flags in million TEU)

Flag	Owner Country					
	Germany	Greece	China, PR of	Denmark	Japan	Other countries
Liberia	2.3	0.6			0.1	0.8
Panama		0.1	0.4		0.8	1.8
Hong Kong	0.1	0.1	0.7	0.2		1.4
Singapore	0.2	0.2		0.3	0.1	1.2
Malta	0.2	0.5	0.1			0.4
Other flags	2.4	0.5	0.6	1.1	0.2	Other/Other: 12.7 M TEU

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