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Economic View of the Registration of Seagoing Vessels in Landlocked Countries

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ABSTRACT

This article describes the management of Maritime Registry, with a focus on the economic benefit of such actions for each of Maritime Administrations / Flag States. At the same time it mentioned real threats, risks and bottlenecks arising from unsystematic approach to the Flag State registration of Seagoing Vessels, based on real experience. The article is an analysis of successful Maritime Registers on the basis of which should be made by synthesis system solutions as an International Maritime Shipping Register.

KEYWORDS : Maritime Register, Landlocked Country, Seagoing Vessel

INTRODUCTION

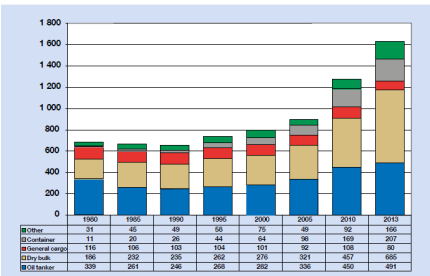
Registration of a Vessel in the Maritime Register is the process whereby seagoing vessel acquires the nationality of the state and created her right to fly the flag of the country of registration. The nationality of the Shipowner and granting the right to fly the flag of the country allows the Ship (means Seagoing Vessel) to move in international waters and in coastal waters of a coastal states and port states. Registration of Ships is defined within international legal framework and in more detail in national maritime legislation of each Flag State.

The entire process of registering of Ships is charged in every state (Flag State) of registration. And the Flag State receives annual financial income for registered tonnage. With reference to increasing global maritime trade tonnage there is growing demand for its registration. In connection with fact of free choice of flag, respectively free choice of place of registration (by owner), can be clearly identified the scope for economic potential and benefits of this activity, not only for coastal states, but also for landlocked countries that can by appropriate system solution make registering Ships such as coastal states. But the role and the possibility to register Ships are for Landlocked countries more difficult than in coastal states. The certain reason of more difficult of registration process and poorly utilized Institute of Maritime Register of Landlocked countries is their geographic location without direct access to the sea and thus the lack of long-term experience with maritime navigation.

DATA FOR CREATION OF FUNCTIONAL MARITIME REGISTER

Defining a functional model of Maritime Register of landlocked countries and defining the economic benefit for the landlocked country flag precedes statistical data collection and subsequent analysis of the relevant data.

Figure 1 shows a growth of registered maritime trade tonnage. With regard to the real growth of world tonnage and obligation of shipowners to register a ship is clearly space for creating greater attractiveness of existing functional and successful maritime registers or creating, respectively improving the conditions of maritime registers with zero registered tonnage. On the basis of international law every shipowner has the free choice of a state registration/flag state (currently in the world there are 170 flag states).



	1980	1985	1990	1995	2000	2005	2010	2013
Other	31	45	49	58	75	49	92	166
Container	11	20	26	44	64	98	169	207
General cargo	116	106	103	104	101	92	108	80
Dry bulk	196	232	235	262	276	321	457	685
Oil tanker	339	261	246	268	282	336	450	491

Figure 1 - Graph of growth registered tonnage in million DWT and type of vessels, Source [1]

Certain flexibility for registration represents *International Maritime Registers* and Flag States called *Flags of Convenience*. International Register meets the minimum requirements of international legislation for the registration and filling technical and social conditions for offshore work. However, it is more open to foreign ship owners than *National Maritime Register*, which is closely linked with the national legislation of the country, especially in the area of labor relations and social aspects.

Figure 2 shows that national registers of flag states are nearly 300 million registered tonnage (RT) are utilized institution. At the same time figure of close to 900 million RT under the international open register shows which direction prefer shipowners to register their seagoing vessels.

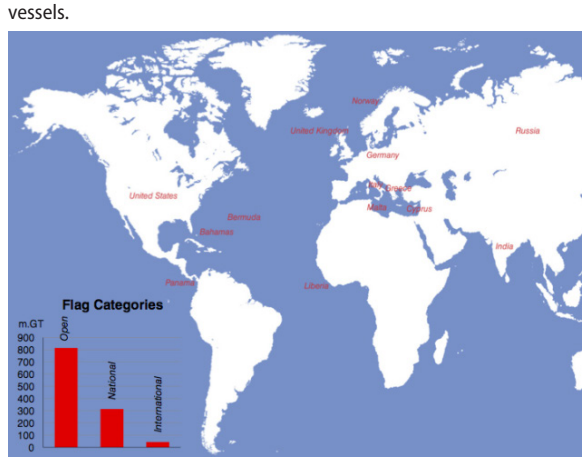


Figure 2 - Categorization of Maritime Registers, Source [2]

To build up the best possible solution of Maritime Register term applicable to inland states is required the collection of relevant statistical data of successful maritime registers.

The criterion for the success of the maritime registers not only the number of registered seagoing vessels, registered tonnage but also data concerning riskiness of flags. It represents a risk calculation implemented by Port State Control (PSC) as resulting from the arrest of substandard seagoing ships under the flag of the state, repeated detention and their frequency in ports as well.

3. ANALYSIS AND SYNTHESIS OF DATA

Based on the statistical data is done measurement values which should represent relevant information and data for analysis (see Table 1) for the purpose of selection of successful maritime registers.

From data collection should then be evaluated successful registers (see Table 2) and subsequently should be making an analysis of its tonnage tax.

RELEVANT STATISTICAL INDICATORS	
Measured Data	***Unit***
Number of Registered Vessels	Piece
Share of the flag state vessels registered in the world	%
Registered tonnage of the flag tate	1.000 DWT
The proportion of registered tonnage of the state flag in the world	%
The average tonnage of ships registered in Flag State	DWT
Increase / decrease of registered tonnage of the flag State (current year / previous year)	%

Table 1 – Set of Statistical Indicators, Source [3]

It is worth mentioning that among the successful registering Flag States belongs to developing countries with a small geographical area (see Table 2).

Table 2.6. The 35 flags of registration with the largest registered fleets, as of 1 January 2015 (dwt)

Flag of registration	*Number of vessels*	*Share of world total, vessels*	*Deadweight tonnage (1,000 dwt)*	*Share of world total (dwt)*	*Cumulated share (dwt)*	*Average vessel size (dwt)*	*Dwt growth 2015/2014 as %*
Panama	8 351	9.33	352 192	20.13	20.13	44 052	0.91
Liberia	3 143	3.51	203 832	11.65	31.79	65 018	0.31
Marshall Islands	2 580	2.88	175 345	10.02	41.81	67 990	13.32
Hong Kong (China)	2 425	2.71	150 801	8.62	50.43	63 575	6.47
Singapore	3 689	4.12	115 022	6.58	57.01	33 830	8.52
Malta	1 895	2.12	82 002	4.69	61.70	43 898	8.69
Greece	1 484	1.66	78 728	4.50	66.20	63 286	4.45
Bahamas	1 421	1.59	75 779	4.33	70.53	54 322	2.54
China	3 941	4.41	75 676	4.33	74.85	20 756	-1.28
Cyprus	1 629	1.82	33 664	1.92	76.78	32 000	3.96
Isle of Man	1 079	1.21	23 008	1.32	78.09	55 441	-2.28
Japan	5 224	5.84	22 419	1.28	79.38	5 558	7.47
Norway	1 558	1.74	20 738	1.19	80.56	15 339	-1.20
Italy	1 418	1.58	17 555	1.00	81.57	14 556	-11.22
United Kingdom	1 865	2.08	17 103	0.98	82.54	16 059	-0.35
Republic of Korea	673	0.75	16 825	0.96	83.51	10 099	-3.13
Denmark	7 373	8.24	16 656	0.95	84.46	26 606	13.94
Indonesia	1 604	1.79	15 741	0.90	85.36	3 681	2.29
India	1 174	1.31	15 551	0.89	86.25	10 157	-1.39
Antigua and Barbuda	650	0.73	12 753	0.73	86.98	10 909	-3.45
Germany	3 561	3.98	12 693	0.73	87.70	22 230	-11.69
United States	1 613	1.80	12 683	0.73	88.43	6 089	2.59
United Republic of Tanzania	1 313	1.47	11 703	0.67	89.10	46 256	-1.54
Bermuda	1 245	1.39	11 511	0.66	89.75	71 946	2.69
Malaysia	1 777	1.99	9 232	0.53	90.28	6 793	-0.95
Turkey	2 471	2.76	8 820	0.50	90.79	8 181	-2.64
Netherlands	1 412	1.58	8 651	0.49	91.28	7 536	0.34
Belgium	756	0.85	8 609	0.49	91.77	45 548	21.96
Viet Nam	674	0.75	7 351	0.42	92.19	4 499	0.81
Russian Federation	963	1.08	7 221	0.41	92.60	2 974	2.45
France	670	0.75	6 882	0.39	93.00	16 042	-8.85
Philippines	646	0.72	6 850	0.39	93.39	6 149	6.19
Kuwait	765	0.86	5 440	0.31	93.70	40 002	37.91
Thailand	749	0.84	5 070	0.29	93.99	7 636	0.86
Taiwan Province of China	586	0.66	4 829	0.28	94.27	18 431	8.05
Top 35 total	72 377	80.90	1 648 937	94.27	94.27	27 697	3.53
World total	89 464	100.00	1 749 222	100.00	100.00	22 757	3.54

Table 2 – Successful Flag States, Source [4]

Appropriate adjustment of registration fees is significant in terms of competitiveness for newly created register of ships, respectively for maritime registers with zero tonnage.

3.1 ANALYSIS OF TONNAGE TAX

For the activities associated with the registration of seagoing vessels in the maritime register of each state in its national legislation set the level and structure of fees/tonnage tax related to the registration of commercial ships, including the amount of the annual fee for registered tonnage. Payment system in the most maritime administrations is also applicable to the conduct of inspections by the flag state to assess the technical condition of a ship.

Tonnage tax represents an annual income funds to the flag state for the registered maritime tonnage under its flag. Most registering flag states have these fees as a set of volume of NRT (Net Register Tonnage) of a ship. NRT represents the amount of tonnage cargo hold space of a ship. Some maritime administration (eg. Slovakia) have an exceptional amount of tonnage charges set on the basis of BRT (Brutto Register Tonnage), which includes beyond the volume of cargo space also the volume of the fuel and ballast tanks, engine room and superstructure.

To demonstrate the model chosen real structure of existing tonnage tax in selected maritime administrations, namely Bahamas (BS), Liberia (LR) and in the framework of the EU Maritime Administration of Cyprus (CY), Luxembourg (LU), Czech Republic (CZ) and Slovakia (SK), which have very similar geographic area.

Type composition of vessels is set to the most frequently registered seagoing vessels, including averaged tonnage for each type of vessel (see Table 3).

Type of a Vessel	*Tonnage*	*The model chosen tonnage*	
	DWT	*BRT*	*NRT*
HANDYSIZE	15 000 - 30 000	23 000	10 000
MAXISIZE	50 000 - 60 000	39 000	19 000
PANAMAX	65 000 - 80 000	43 000	22 000

Table 3 – Type Tonnage of Vessels, Source [5]

To calculate tonnage tax has been made to model simplify for 3 identical types of vessels with uniformly defined tonnage (see Table 4).

Tonnage tax (USD) according to type of a Vessel			
Flag State	**Handysize**	**Handymax**	**Panamax**
BAHAMAS	4 655	6 185	6 695
LIBERIA	7 450	10 020	10 410
CYPRUS	724	1 139	1 277
LUXEMBOURG	5 963	9 679	10 917
CZECH REPUBLIC	14 480	22 400	25 520
SLOVAK REPUBLIC	2 978	4 080	4 080

Table 4 – Type Tonnage of Vessels, Source [6]

In the case of flag states CY, CZ and SK are not included in the annual fee the cost of implementing the annual independent inspection by the flag state.

Worth noting that compared two European flags, specifically below average rate of CY and above average rate of CZ.

Probably within the context of EU maritime legislation, the higher rate of CZ and LU could be the aim of an intention to promote quality EU flag.

In connection with the fact that the Maritime Administration BS, LR, CY and LU takes into account the calculating fees for tonnage also the age of a merchant ship when is entering in the maritime register, shows Table 4 model set of single five-year age limit for type of a vessel.

Through synthesis should be designed sufficiently flexible modeling fees for tonnage, which from an economic perspective will totally competitive, particularly in comparison with the concerned flag states, especially within the EU.

The management of maritime registry should be - from an economic perspective - treated as a business management. The analysis should includes the *Economic Break Even Point*. By flag state receiving the constitute charges associated with the registration of seagoing vessels, registration fees and administrative fees (e.g. liens and mortgages rates of ships, fees for independent annual inspections), is therefore desirable to find, on the basis of modeling income, the economical break even point.

Such analysis determines the size of the performance of the maritime register, which is necessary to cover the costs and revenues from the

sale of this service - registration of merchant tonnage - by the flag state. The primary purpose of this analysis is that when calculating the fixed and variable costs, to find a suitable track number and type of registered seagoing merchant vessels in which the gain is zero (see Figure 3) .

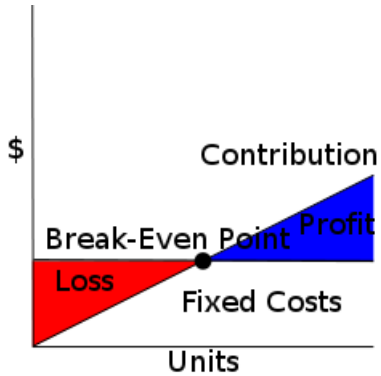


Figure 3 - Economical Even Break Point, Source [7]

4. THREATS AND THEIR ELIMINATION

Real threats for open maritime register in the flag state can be literally without any practical knowledge and experience an unprepared national legislation, which allows unsystematically registered seagoing vessels.

One of the international tools for conducting statistical indicators of carried out inspections on board of vessels in ports is to establish a *Memorandum of Understanding* on exercising PSC. Subsequent statistics, according to the number of findings and hiding of seagoing vessels in ports establish *Blacklist of Ships*, which is a list of undesirable and substandard vessels which have been identified as a very serious threatening with safety deficiencies.

If the statistics show the repeated occurrence of such serious failures on vessels flying the flag of a state receives is also the State to blacklist states. This option blacklist assessed in a way that a given state (flag) has serious flaws in its own system and is not sufficiently capable of effective state supervision of safety of navigation.

Paris MoU
Black – Grey – White List

Paris MOU on Port State Control

Black List 2006 – 2008

Rank	Flag	Inspections 2006-2008	Detentions 2006-2008	Black to Grey Limit	Grey to White Limit	Excess Factor
83	Korea, Democratic People's Rep.	204	73	21	Very High Risk	8.75
82	Bolivia	37	14	6		6.94
81	Albania	284	72	27		5.73
80	Libyan Arab Jamahiriya	30	10	5		5.24
79	Sierra Leone	345	73	32		4.55
78	Comoros	505	99	45		4.26
77	Cambodia	727	128	63	High risk	3.78
76	Georgia	885	150	75		3.64
75	Slovakia	317	55	30		3.33
74	Syrian Arab Republic	227	39	23		3.09
73	St Kitts and Nevis	306	50	29		3.00
72	Lebanon	96	18	11	Medium to high risk	2.88
71	Honduras	68	13	9		2.64
70	Mongolia	53	10	7		2.30
69	St Vincent and the Grenadines	2,355	265	186		2.07
68	Egypt	137	20	15		2.00
67	Moldova, Republic of	92	14	11	Medium Risk	1.87
66	Belize	609	62	53		1.42
65	Panama	8,043	667	601		1.27
64	Ukraine	575	55	51		1.22
63	Dominica	175	19	18		1.11

Table 5 - Blacklist of PMoU 2006-2008 (SK is listed as a High Risk Flag), Source [8]

In this context, based on the recent case of the Slovak Republic, which in the period 2002 - 2008 literally launched unsystematically registration seagoing merchant vessels, which were in the peak 60 vessels. After an initial, basically successful development of this activity, occurred in a relatively short time to utterly negative development due to insufficient state supervision over ships flying the Slovakian flag. The Slovak Republic since the start of EU accession in 2004, appeared on the blacklist PMoU (Paris memorandum of Understanding). In the years 2006 - 2008, the Slovak flag was evaluated as a High Risk Flag (see Table 5).

5. CONCLUSION

Creating a system solution of the international maritime shipping register is at the discretion of each flag state, both coastal and inland. In the case of a systemic approach to the registration of seagoing vessels, creating sophisticated registration procedures and well developed national maritime legislation related to the systemic coverage registration of seagoing vessels can be stated that such a system solution of maritime shipping register, may be for state benefits. Because of both in terms of national, which represents the state of the economic benefit arising from the fee registration and tonnage tax and in terms of international, the registration number and quality of seagoing vessels represents the index of success in a very important transport mode - in maritime transport.

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