

# Port State Control Impact on shipowners

Emilia Lindroos

Master's Thesis

Master of Maritime Management

Turku 2019



## EXAMENSARBETE

Författare: Emilia Lindroos

Utbildning och ort: Magisterexamen inom sjöfart, Åbo

Handledare: Aleksii Uttula

Titel: "Hamnstatskontroller och dess påverkan på fartygsägarna"

---

Den 20 April 2019

Sidantal 44

Bilagor 3

---

### Abstrakt

I arbetet diskuteras korruption och maktmissbruk förekommer inom Paris och Tokyo MOU, samt på vilket sätt fartygsägarna upplever hamnstatsinspektioner och dess genomförandet. Undersökningsmaterialet har främst samlats in genom intervjuer med fartygsägare som representerar en total flotta av 809 lastfartyg. Statistik över utförda inspektioner och resultat från dem har även använts i kartläggningen.

Även om undersökningen visar att maktmissbruk och korruption blir allt mer ovanligt, har det under intervjuerna framkommit flera konkreta exempel på hur korruption och maktmissbruk förekommer både i Paris och Tokyo MOU. Vidare finns det indikationer på att hamnstatsinspektionerna ibland används som politiska verktyg.

Under studien och i det här examensarbetet har fartygsägarnas besvärliga situation diskuterats och det har visat sig att det i stort sätt är omöjligt för en fartygsägare att få upprättelse för kvarstad som är baserat på felaktiga grunder. Felaktiga inspektionsresultat bidrar ofta till stora ekonomiska förluster för fartygsägaren i form av "off-hire", förlorade kunder och företagsrykte samt nedgraderingar i riskprofileringen med tätare inspektionsintervall som följd. I examensarbetet förs en diskussion över huruvida procedurerna som MOU har fastställt tjänar fartygsägarnas intresse eller enbart de enskilda MOU.

Informationen som framkommer i intervjuerna är ofta konkret om hur fartygsägarna uppfattar hamnstatskontroller och flera konkreta exempel över korruption och missbruk av tjänsteställning förekommer.

---

Språk: Engelska

Nyckelord: Port State Control, PSC, korruption, Paris MOU, Tokyo MOU, kvarstad, hamnstatskontroll, hamnstatsinspektioner, maktmissbruk, transport, hamn, riskprofil.

---

## OPINNÄYTETYÖ

Tekijä: Emilia Lindroos

Koulutus ja paikkakunta: Master in Marine Technology

Ohjaaja(t): Aleksi Uttula

Nimike: " Port State Control - Impact on shipowners"

---

20 huhtikuu 2019

Sivumäärä 44

Liitteet 3

---

### Tiivistelmä

Tämä työ kartoittaa mahdollista korruptiota sekä vallan väärinkäytöksiä Pariisin ja Tokion MOUn puitteissa. Työssä tarkastellaan myös kuinka omistajatahot kokevat satamatarkastukset sekä niitä suorittavien tahojen toiminnan. Tutkimus perustuu lähinnä alusten omistajien haastatteluihin edustaen siten yhteensä 809 rahtialusta. Kartoituksessa on käytetty suoritetuista tarkastuksista sekä niiden tuloksista saatuja tilastotietoja.

Vaikka kartoituksen perusteella voidaan todeta että korruptio ja vallan väärinkäyttö on vähentynyt, on haastatteluissa tullut ilmi että konkreettisia esimerkkejä edelleen esiintyy sekä Pariisin sekä Tokion MOUssa. Satamatarkastus käytännöissä esiintyy epäilyjä ja viitteitä poliittisiin tarkoitukseen.

Kartoituksen aikana sekä tässä työssä on tullut esiin laivanomistajien ahdinko. Omistajien on lähes mahdotonta saada oikaisua asiattomiin ja aiheettomiin päätöksiin. Virheellisistä päätöksistä aiheutuu suuria taloudellisia tappioita muun muassa "off-hire"-aikana, menetettyinä asiakkaina sekä yrityskuvan heikkenemisenä alan toimijoiden piirissä. Aiheettomat raportit voivat aiheuttaa MOUssa listaussijan putoamisen. Listaussijan putoaminen MOUssa johtaa taas tarkastuksien lisääntymiseen. Työssä pohditaan palveleeko MOUn käytännöt alusten omistajia ylipäättään vai vain organisaatiota itseään.

Haastatteluiden aikana tuli esille miten alusten omistajat kokevat satamatarkastukset sekä nousi esiin konkreettisia esimerkkejä alalla esiintyvistä korruptiosta ja virkavallan väärinkäytöstä.

---

Kieli: Englanti

Avainsanat: Port State Control, PSC, korruptio, Paris MOU, Tokio MOU, satamatarkastukset, vallan väärinkäyttö, kuljetus, satama, alusten riskinhallinta

---

## MASTER'S THESIS

Author: Emilia Lindroos

Degree Programme: Master in Marine Technology

Supervisor(s): Aleksi Uttula

Title: "Port State Control corruption and its impact on the shipowner"

---

20<sup>th</sup> of April 2019

Number of pages 44

Appendices 3

---

### Abstract

This thesis discusses if corruption and power abuse are present during Port State Control within the Paris and Tokyo MOU. The thesis also looks into how the shipowners experience the Port State Control inspections and their regime. The research has mainly been conducted through interviewing shipowners who represent 809 cargo vessels. Statistics concerning conducted inspections and their inspection result have been used during the research process.

The research indicates that the Port State Control abuse and corruption have decreased, however, many cases were brought up during the interviews which indicate that abuse and corruption are still present in both Tokyo and Paris MOU. There were also concerns that Port State Control in some cases is used for political interests.

During the research process and in this thesis the concern about the shipowners' strained situation has been discussed. It has become evident that shipowners have very limited possibilities to get redress for unjustified detentions.

Unjustified detentions often cause major economic losses in form of "off-hire", lost clients and over all company reputation. The shipowners also suffer from downgrading within the MOUs' ranking systems, which will lead to a reduced inspection interval. The thesis has also looked into how effective the MOUs' procedures are and how they serve the shipowners' interests.

During the interviews the shipowners have given their perception views on how the Port State Control regime is performing and examples on how corruption and abuse are present in the modern shipping industry.

---

Language: English

Key words: : Port State Control, PSC, Corruption, Paris MOU, Tokyo MOU, detention, Inspection, PSC inspections, PSCO, abuse of power, transport, port, ship risk profiling, company performance

---

## Table of contents

1	Introduction .....	1
1.1	Aim of study.....	2
1.2	Limitations.....	3
2	Method.....	5
3	Literature review.....	7
3.1	Unreasonable detentions and legal rights .....	7
3.2	Legal status of a detention .....	8
3.3	The legal case: Lantau Peak case.....	8
3.3.1	The legal regime relevant to the case .....	10
3.3.2	Court Decision.....	10
3.4	Different types of corruptions and bribes .....	11
3.4.1	Corruption .....	12
3.4.2	Corruption types within the PSC .....	13
3.4.3	Financial benefits.....	14
3.4.4	Political .....	15
3.4.5	Status gain .....	15
3.4.6	Local interests.....	15
3.5	Tools used for abusing the system .....	16
3.5.1	PSC inspection windows.....	16
3.5.2	Overload of crew and their rest hours .....	17
3.5.3	Threaten with additional consequences.....	18
4	Result of research and discussion.....	18
4.1	Political.....	18
4.2	The political case: Seven Finnish detentions in a two-week period.....	22
4.3	Implementations of MOU procedures .....	24
4.4	Appeal of PSC inspections .....	25
4.5	Corruption and Bribery.....	28
4.6	Local interests.....	29
4.7	Status gain .....	30
4.8	PSC outcome and classification society .....	30
4.9	Economic effects of unjustified detentions or deficiencies.....	31
4.10	PSC reports .....	31
4.11	Bribe types and amounts .....	32
4.12	Detention and Deficiency rates.....	32
4.13	Shipowners measures against unjustified deficiencies or detentions .....	36
5	Conclusions.....	37

5.1	Different types of corruptions and bribes within the PSC regimes .....	37
5.2	Conclusion on the political case: Seven Finnish detentions in a two-week period.....	38
5.3	The legal status of the MOUs and the shipowners' rights and possibilities to justice.....	39
6	Critical review and suggestion for future research.....	41
	Bibliography .....	43

# Appendices

Appendix 1: Research interview questionnaire

Appendix 2: List of Paris and Tokyo MOU members.

Appendix 3: Paris MOU (and Tokyo MOU) “Explanatory note – “White”, “Grey” and “Black List”” (Note: same for Tokyo MOU)

Appendix 4: Tokyo MOU “Information sheet of the new inspection regime (NIR)”

Appendix 5: Paris MOU “Annex 8: Inspection and Selection Scheme”

Appendix 6: Paris MOU “Annex 7: Ship Risk Profile “

## Abbreviations

AMSA	Australian Maritime Safety Authority
BIMCO	World's largest international shipping association
ISM	International Safety Management
INTERTANKO	The International Association of Independent Tanker Owners)
INTERCARGO	International Association of Dry Cargo Shipowners.
MARPOL	International Convention for the Prevention of Pollution from Ships (IMO Convention)
MLC	Marine Labor Convention
MOU	Memorandum of understanding
Rightship	Maritime risk management and environmental assessment organization,
RO	Recognized Organization
SOLAS	Safety of life at sea (IMO Convention)
STCW	Standard of training certificates and watch keeping (IMO Convention)
TRAFI	Transport Agency in Finland, from January 2019, Traficom.
PSC	Port State Control
PSCO	Port State Control Officer
USCG	United States Coast Guard
VTS	Vessel Traffic Service



## 1 Introduction

The Port State Control regimes have interested me for many years. A question that has crossed my mind many times is how Port State Control can differ so much between different countries? How can the outcome from the inspections be so different even though all the inspections are relying on the same international legal requirements? Based on these thoughts the process for this research started. I thought that these thoughts could serve as an interesting topic and that the outcome could be interesting for many different segments of the maritime industry.

In this thesis, a mapping of the problem has been made and the result from the research is very straightforward. Different types of corruption exist and are affecting Port State Control inspection results in both Europe and Asia. The UN General Assembly has found that corruption is “*a transnational phenomenon that affects all societies and economies*” (U.N. Convention, supra note 4). Shipping is no exception.

## 1.1 Aim of study

During the latest decades, the shipping industry has seen a change in how Port State Controls (PSCs) are arranged. More and more states have different kinds of mutual agreements with other states on how PSC will be conducted and documented. These agreements are called Memorandum of Understanding (MOU). Currently there are nine different MOUs: Paris MOU, Tokyo MOU (Pacific Ocean), Acuerdo de Viña del Mar (South and Central America), the Caribbean MOU, the Mediterranean MOU, the Indian Ocean MOU, the Abuja MOU (West and Central Atlantic Africa), the Black Sea MOU, and the Riyadh MOU (Persian Gulf). US Coast Guard (USCG) are normally also considered as a MOU even that they not official belong to one. USCG are actively following and communicating with Paris and Tokyo MoU.

The two most important MOUs are; Tokyo and Paris MOU. These are also the MOUs that are the most developed and have the highest number of member states and therefore also the highest number of conducted PSC inspections. Both Tokyo and Paris MOU have strict procedures on how, when and by whom the PSC inspections onboard a vessel will be conducted. After each conducted inspection a record will be registered in their own database. This record and result will then be used by a variety of instances, not only by the MOUs, but also for customers and authorities. For that reason the result from these inspections have in the last decade become more and more important for the shipowners and their business opportunities.

Even though the MOU regimes have proven to increase safety and the standard of ships trading their area, there is also a disadvantage with the system. The system can be misused in different ways and create opportunities for different kinds of corruption. The shipping industry has been described as *“In many ways, the shipping industry is exposed to more levels of corruption than any other industry, as it is a global industry that does not have a mature anti-corruption compliance culture.”* (Splash 2015)

The main purpose and aim of this thesis is to map the existence of corruption within Paris and Tokyo MOU and what effects the corruption have on the shipowner and their business opportunities. The research also discusses:

- The legal status of the MOUs and their procedures and how it affects the shipowners' rights and possibilities to justice
- Different types of corruptions and bribes within the PSC regimes

The research questions and the discussion themes are important to investigate, since only a few papers have so far been written on the topic tangent the specific research problems above. The previous studies which have addressed the topic have mainly been written from a governmental or MOU perspective and not from a shipowner's perspective.

## **1.2 Limitations**

The research will be limited to shipping companies which operate general cargo vessels. This limitation is done since other segments of the shipping companies have other control organs, such as vetting inspection which give them advantages when it comes to PSC. Passenger vessels have large human resources, and therefore they have advantages when it comes to PSC compared to a cargo vessel.

The PSC is handled by all port states separately, however many countries have agreed on mutual agreements with each other. These agreements are so called MOUs (Memorandum of Understanding) and include agreements how to plan, conduct and report PSC.

This study has only use Paris and Tokyo MOU as references since these are the most developed and have the highest amount of member states. These MOUs also have the most stated procedures, which helps the researcher to get a general understanding of how the MOUs work.

In order for the shipowners to be approached for the interview request, their vessels must trade both Paris and Tokyo MOU. However, there have been no minimum limitations on the amount of port calls a shipowner's fleet have to have in each MOU. Comparing results from the two MOUs, creates opportunities to look into the political and international relationships between countries.

As an additional limitation to this research, the choice has been made not to go into details on how the different MOUs use their weighting systems to calculate “ship-risk-profiles” or “company performance”. The weighting systems are complex and these specific topics have been researched in other articles and papers and are also available in detail at the specific MOUs’ web pages. As an appendix to this thesis an extract from the MOUs’ procedures on how the “ship-risk-profile” and “company performance” is calculated and determined. Readers who are not familiar with the MOUs’ weighting systems are recommended to familiarize themselves with the procedures used by the MOUs’ before proceeding with this thesis.

The thesis will not analyze the education level and experience requirements of the PSCOs since this would require a complete separate research method. However, the PSCO education and experience requirements are included in the literature review.

## 2 Method

To be able to determine if companies are affected by PSC injustice, this research has reached out to discuss the matter with different shipowners and their representatives through interviews. The method used is qualitative interviews. The process of selecting the persons for interviews was mostly based on the limitations in this thesis. The interviews were only conducted with shipping companies operating general cargo vessels in both Paris and Tokyo MOUs' areas. The contact details were obtained through the shipowners' own web pages and the shipowners were contacted through e-mail, phone calls or in person. A challenge encountered during the phase of contacting interviewees was that most of the approached shipowner and shipowners' associations declined my request for an interview or did not respond to my request. Already in the beginning of the research, it became clear that the subject concerning PSC corruption is taboo for the people and companies involved.

Due to the geographical spreading, most interviews have been conducted online, with recorded video and audio. A few of the interviews were done in person. In total the shipowner representatives taking part of the research represented a fleet of 809 vessels trading worldwide. The participating shipping companies mostly have their headquarters within the EU but one of the interviewed has its headquarter in Singapore. In addition to the shipowners, this research also contains two interviews with representatives from shipowners' associations in two different countries. Since the research contains sensitive information, all shipowners and the shipowners' associations taking part in this research will not be mentioned by name or fleet size.

All interviews have been recorded for the purpose of the research process. The questions have been formed as standardized open-ended questions, which allows the shipowners to contribute with as much detailed information as they desire and it also allows the author to ask questions as a follow-up (Turner 2010, 756). The interview has followed the eight principals introduced by McNamara (2009):

- (1) *“Choose a setting with little distraction.*
- (2) *Explain the purpose of the interview.*
- (3) *Address terms of confidentiality.*
- (4) *Explain the format of the interview.*
- (5) *Indicate how long the interview usually takes.*
- (6) *Tell them how to get in touch with you later if they want to.*
- (7) *Ask them if they have any questions before you both get started with the Interview.*

*(8) Don't count on your memory to recall their answers''*

To be able to find shipowners who most likely have been involved in PSC inspections in both Paris and Tokyo MOU, a preparatory work has been done by using the different MOUs' searchable database and other online sources. By randomly searching the databases, based on the researcher's previous work experience, it was possible to find interesting cases to look deeper into. Later on, this contributed with interesting inputs to the research. In the MOUs' databases it is for example possible to limit the search to certain countries, shipowners, inspection result, age of vessel, port of inspection etc. The database provides great opportunities to search for very specific information that was supporting the research process. Based on the preparatory work, the instances mentioned below have been selected for the case studies.

I choose the Lantau Peak case to demonstrate the legal complexity of a PSC and the inspection outcome. The Lantau Peak case, one of few cases where the result from a PSC inspection has been brought to trial in a governmental court. To look into this case is important. Because it brings up the complex legal status, that the PSC inspections have and how it can affect shipowners. It is not easy to find a case where a detention has been brought to court, and almost impossible to find a detention case where the shipowner has recovered compensation for an unjustified detention (Ozcayir 2015, 1-7).

Another case I choose to look into is a political case. Political cases are hard to discover in the database, but this case was found and selected because it's affected many shipowners. The case includes seven Finnish detentions in a two-week period. During a very short timeframe in late 2017 and early 2018, no less than seven Finnish flagged vessels were detained in Russian ports. This is remarkable when compared to the inspection history, where no detention has been given in Russian ports to Finnish flagged vessels during the last two-year period (June 2016-June 2018). In some cases, the inspection window was not open for inspection, and despite of that the Russian authorities conducted inspections. (Paris MOU Inspection database 2018)

What's interesting about the case is that shortly before the seven detentions were given, a Russian flagged vessel was detained in Finland in late November 2017 (Paris MOU inspection database 2018). Could this case be a political case where Russian PSC authorities seek revenge on the Finnish flag?

### **3 Literature review**

As per today the MOUs have several procedures and codes that have the purpose to make the PSC uniform in their approach, however the PSC and the MOUs are far from homogeneous. Even if there were an international standard on training requirements and competence requirement for PSCOs, there would still be room for different interpretations. The MOUs have special requirements for the PSCOs, however they do not need to undergo any specific training or examination or they might not even be required to have seafaring experience. (Ozcayir 2015, 1-7)

IMO Resolution A.1052(27) is a guideline for MOUs on procedures for port state control. So hence it's optional for the different MOUs to choose which part of the resolution they will incorporate in their own procedures. In procedure 1.9 of above mentioned resolution, guidelines are introduced on PSCOs qualifications and training. In these guidelines it's recommended, among other things, that the PSCO has experience as a master or chief engineer and that they are experienced flag state surveyors.

As per today the decision for a detention depends on the professional judgment and knowledge of the PSCO. This is also the reason why the role and expertise of the PSCO is so important. In most states it's possible to make an appeal against an unjustified detention and claim compensation. However, this is a very complex, time consuming and expensive process for the shipowner, since everything concerning appeals depend on domestic laws. (Ozcayir 2015, 1-7)

#### **3.1 Unreasonable detentions and legal rights**

The MOUs have detention review boards, where an unjustified detention can be brought up for discussion in front of a panel of experts. However, these review boards do not have any rights to change or withdraw an inspection result. The review boards can only give recommendations to the member state that have conducted the inspection. (Paris and Tokyo MOU, 2019)

If the member state refuses to follow the recommendation from the detention review panel, it is up to the shipowner to bring it to trial in the member states court system. As per today, a limited number of detention cases has been brought to court by shipowners. For a shipowner to bring a case to court, the case needs to be one where the detention has resulted in significant losses concerning financial aspects or company reputation.

### 3.2 Legal status of a detention

In the IMO's MARPOL, STCW and SOLAS conventions all uniformly state that:

*“All possible efforts shall be made to avoid a ship being unduly detained or delayed [under the provision of the convention]. “When a ship is unduly detained or delayed [under the provision of the convention], it shall be entitled to compensation for any loss or damage suffered.” (SOLAS reg. 19(f), MARPOL article 7, STCW article X (4)).*

Even though all above-mentioned IMO conventions uniformly and very clearly state that shipowners have the right to receive compensation, if an unjustified detention occurs, it is far from a simple process for a shipowner to claim compensation. First of all the above conventions need to be ratified into the domestic law within the state where the detention occurred. Even though most states consider it as self-implementing, there is room for interpretation depending on what approach the court has and the court can refuse to apply it if it's not actively ratified into the domestic law. (Canada v. Berhad, 2005)

To legally approve self-implementation into domestic law will create other kind of interference, which other states can take advantages of. For example, the PSC provision of above convention could cause possibilities for other states to bring cases against PSC on behalf of a shipowner, even though the detention was referring to a convention that does not provide the undue detention provision. (Canada v. Berhad, 2005)

### 3.3 The legal case: Lantau Peak case

Almost certainly, the most famous court case when it comes to PSC, was the Lantau Peak case that was brought up to Canadian court in 1999. The case involves classification societies, flag states, appeals and two court decisions. The case is one of the few cases in recent times, where a detention case has been tried in court.

Background: The Lantau Peak was a bulk carrier under Malaysian flag. In early 1997, the Lantau Peak underwent the 20 years classification, where several class inspections were made to ensure the vessel's seaworthiness. During early 1997, the Lantau Peak also underwent a PSC inspection in Australia. (Canada v. Berhad 2005)

In end of March 1997, on route in the Pacific Ocean the vessel experienced detachment of 13 frames from the vessels hull, in holds 3 and 9. The detachment were due to corrosion and



a request for repairs was made when arriving in the next port, Vancouver CA. (Canada v. Berhad 2005)

After arrival in Vancouver on the 5<sup>th</sup> of April 1997, two PSCOs boarded the vessel to perform a PSC inspection. The PSC inspection resulted in the below deficiencies, and four of them were considered as detainable deficiencies:

1. *Magnetic compass to be adjusted & swung....*
2. *Accommodation ladders P & S: cranes -*
3. *Pad eyes on cranes corroded - to be replaced*
4. *Galley door to alleyway - lock to be removed*
5. *Galley screen door to deck - handles to be replaced.*
6. *Galley doors to be marked to show exit to boat deck.*
7. *The wasted, weld crack and or buckled shipside vertical frames (i) 7 frames No. 3 Hold and (ii) 6 frames - No. 9 Hold affected section to be cropped and renewed.*
8. *No.1 Hold aft Bulkhead Port & Stbd vertical main frame side stiffeners wasted at the base to be cropped and renewed. Several other side main frame face plates and frame side stiffeners damaged affected sections to be replaced.*
9. *All side vertical frames with sections exceeding 17% wastage in Holds Nos. 1, 2, 3, 4, 5, 7, 8 and 9, as listed in the Hull Condition Report dated January 9-11, 1995 to be cropped and renewed.*
10. *All deck plating with doublers between all hatch coamings to be permanently repaired (i.e. no doublers) instead plate inserts.*
11. *Ship holds and coamings to be further surveyed by the Class Surveyor and any recommendation to be included in the repair.*  
*All above work to be done to the satisfaction of the ship safety surveyor and the Class Surveyor” (Canada v. Berhad 2005).*

The detention lasted from 5<sup>th</sup> of April until 12<sup>th</sup> of August 1997. A reason why the detention lasted so long was the shipping company request to be allowed to sail to China to fulfill the repairs at a much lower cost than in Canada. (Canada v. Berhad 2005)

During an early stage of the detention, communication was made on a high level, between classification societies and flag states. During this time, class confirms that the allowance for frame wastage is 25% instead of 17% as mentioned earlier by the PSCO. Later, an appeal was sent by the shipowner and the appeal lead to the agreement that all frames with web wastage beyond 33% will need to be replaced before departure and the frames with web wastage beyond 25% need to be replaced up on arrival in China.

On the 12<sup>th</sup> of August, the vessel sailed from Vancouver and after that the repairs were done in China, the Lantau Peak could finally be back on-hire again on the 10<sup>th</sup> of October 1997, meaning a total 188 days off-hire. (Canada v. Berhad 2005)

### 3.3.1 The legal regime relevant to the case

SOLAS is an international convention adopted by Canada in year 1974. States that has adopted SOLAS need to incorporate the regulation into the domestic law to implement SOLAS. Canada has only done this partly. The detainable deficiencies was referring to a paragraph in SOLAS. (Kuchytskyy 2012, 42)

SOLAS reg. 19(f) chapter I, states:

*“All possible efforts shall be made to avoid a ship being unduly detained or delayed [under the provision of the convention]. When a ship is unduly detained or delayed [under the provision of the convention], it shall be entitled to compensation for any loss or damage suffered”*

In order for the above mentioned regulation to be applicable, it must be ratified into the domestic legislation, in this case Canada’s domestic legislation. Canada has not implemented it into their domestic law and therefore a court can refuse to apply it (Kuchytskyy 2012, 42).

Tokyo MOU is a non-binding mutual agreement, from year 1993. Domestic law regulates the power of inspections and the source of authority. (Kuchytskyy 2012, 42).

### 3.3.2 Court Decision

In year 1999, the shipowner brought charges against Transport Canada for *“recovery of expenses incurred by unnecessary repair expenses on the view of the shipowner and the loss of hire resulting from the considerable period of detention”* (Kuchytskyy 2012, 44).

The federal court judge decided in favor for the shipowner. The PSCO was negligent and the judge awarded the shipowner nearly C\$6 million against the Canadian government.

Judge:

*“Because of the above analysis, I find that a reasonable and prudent Port State Control inspector would not have imposed a 17% wastage standard; in my opinion, its imposition constitutes a breach of the duty of care owed to the Plaintiffs, and, as such, constitutes negligent conduct on the part of Inspector Warna.”* (Canada v. Berhad 2005).

The government appealed the decision and the final outcome was different. The judge concluded that the PSC inspector only is liable if decision of detention was unreasonable. In this case, it was not unreasonable and therefore the judge concluded in the favor of the PSCO. (Canada v. Berhad 2005)

### **3.4 Different types of corruptions and bribes**

The first important step when it comes to looking into the research question concerning PSC corruption has been to study the different MOUs' procedures and to understand their weighting systems including the "ship risk profile" and "company performance" systems. What are the similarities and what are the differences between Tokyo and Paris MOU? How do these systems and procedures affect the flag, shipowners, ships and classification societies? The main difference in the procedure is that Tokyo MOU is not using banning of vessel as Paris MOU uses. In Paris MOU, a vessel can be banned from calling any port within the Paris MOU area. A vessel, listed on the black or grey list, which have encountered three or more detentions in a three-year period, will be banned for a limited time. If the vessel does not improve its performance, the vessel can be banned for a longer period. (Paris MOU procedures)

The weighting points and inspection windows are also calculated slightly differently between the MOUs. However, the overall procedure and the periods concerning the "memory" of the system is the same, a three-year period. The inspection result will in other words affect a shipowner for three years after the inspection date. As appendices to this thesis, an extract from the inspections regimes function: Paris and Tokyo MOUs' inspection regime as per February 2019.

Since the weighting system is relatively new, only a limited number of journals have been written about its effects. A few scientific articles covering some aspects of the research area have been used for the literature review. Several studies have been done, covering the flag-hopping phenomena where shipowners may benefit in the PSC weighting point systems by changing flag of their vessels instead of improving safety standards onboard their vessels. (Wolff & Cariou 2010, 14-15). Furthermore, some researchers believe that the shipowners start to choose ports, for their substandard vessels, depending on detention rates in the ports. The shipping community will soon start seeing a problem with "ports of convenience" just like the shipping community already has done with "flag of convenience" (Ozcayir 2015, 1-7).

This is supported by the study made on corruption in South African ports. In the study it shows that South African firms choose ports to ship from, based on the corruption within the port. It has been concluded that firms, that ship high tariff goods, are 22-23% less likely to ship the goods through ports with high corruption. (Sequeira & Djankov 2010, 29)

Researches has also been done on how PSC inspections and founding of the MOUs have affected the number of maritime casualties. PSCs will not eliminate all casualty, but PSCs have played a major role in the general reduction of the number of maritime accidents observed during the last decade. (Maximo et al. 2010, 1).

### 3.4.1 Corruption

The meaning of the word corruption is far from clear; throughout history the word has had different meanings. As from a Political context, Nathaniel Leff gave the following explanation:

*“Corruption is an extra-legal institution used by individuals or groups to gain influence over the actions of the bureaucracy. As such the existence of corruption per se indicates only that these groups participate in the decision-making process to a greater extent than would otherwise be the case.”* (Johnston 2017, chapter 1).

In a public-Office-Centered context: *J.S Nye* defines corruption as:

*“...Behavior which deviates from the normal duties of a public role because of private-regarding (family, close private clique), pecuniary or status gains; or violates rules against the exercise of certain types of private-regarding influence. This includes such behavior as bribery (use of reward to pervert the judgment of a person in a position of trust); nepotism (bestowal of patronage by reason of ascriptive relationship rather than merit); and misappropriation (illegal appropriation of public resources for private-regarding use).”* (Johnston 2017, chapter 1).

Corruption generally will appear differently depending on what community it is imposed into. The tolerance of corruption practice will also be different depending on community and culture (Johnston 2017, chapter 3).

Studies show that decreasing personal contact between officials is likely to decrease the opportunities to extract bribes. This has been proven by research made on the police enforcement, where certain procedures have been replaced by online forms and applications

and the personal contact between the police official and the customer has disappeared, causing the corruption opportunities to decrease. (Sequeira & Djankov 2010, 36-37)

The corruption perception index is announced yearly by the Transparency International Association. The ranking in the corruption perception index, for some selected, Tokyo and Paris MOUs' member states can be seen in (Table 1) below. The countries in (Table 1) is selected based on their relevance for this thesis, for a complete list please refer to the Transparency International Association web-page.

**Table 1 Corruption index for Paris and Tokyo MOUs' member states for year 2018. Rank 1 = least corrupted, rank 138 = most corrupted. (Transparency 2019)**

<i>Country</i>	<i>Corruption perception index ranking</i>
<i>Russia</i>	138
<i>Thailand</i>	99
<i>Indonesia</i>	89
<i>China</i>	87
<i>Greece</i>	67
<i>Italy</i>	53
<i>Korea</i>	45
<i>Japan</i>	18
<i>Australia</i>	13
<i>Singapore</i>	3
<i>Finland</i>	3
<i>Denmark</i>	1

According to the ranking in the corruption perception index, the most corrupted member state of the Paris and Tokyo MOUs is Russia. The least corrupted is Singapore in Tokyo MOU and Denmark in Paris MOU. (Transparency 2019)

### **3.4.2 Corruption types within the PSC**

When it comes to corruption within the PSC regimes, *Ozcayir (2015,1-7)* writes, “*Like any other system where human beings are involved, the port State Control system can be abused*”. Studies have shown that the more a company is dealing with public sector organizations, the higher the probability is that the company needs to pay bribes (Svensson, 2002, 21). Meaning that business between the private and the public sector is more affected

by corruption, than if two private owned companies are dealing with each other. In a PSC context, Intertanko has reported that bribes were requested 11% of the time during a PSC.

In early 2017 several of the major shipping associations, such as Intercargo, Intertanko, BIMCO and International Chamber of Shipping, contacted the MOUs and urged that the PSC corruption is a severe problem that needs to be solved. They suggested that a fully independent internal affairs review panel needs to be established, to confidentially assess any complaints of corruption or negligence. The suggestion was declined by the MOUs, although the feedback from more than 120 of Intercargo's members verify the corruption (Cousins 2017).

John Platsidakis, chairman of trade association Intercargo:

*“It is disappointing that the PSC MOUs feel they are happy with the established approach, which is too general and does not have an impact on the issue. It would be fairer if they established a self-assessment procedure, via an internal committee, where people can register their complaints in confidence without being afraid of revenge or retaliation.”*  
(Cousins 2017).

Corruption during PSC inspection does not necessarily mean that it's common practice within the higher officials. If officials are corrupt, it does not necessary mean that the community over all is corrupt (Banerjee 1997, 1295). Corruption can develop even in states where an inadvertent benevolent law creates many opportunities for extracting bribes. As an example is where a state has a large number of public officials who are monitoring activities by firms and that cause the opportunities for extracting bribes to increase. (Svensson 2002, 23)

### **3.4.3 Financial benefits**

Financial benefit includes all kinds of bribes such as money, cigarettes, food items or spirits. These are referred to aggravated corruption where acceptance of small bribes is one of the rights for the inspectors to be able to support his or her family. In some societies, these inspectors are cautious to offer bribes to higher officials. (Johnston 2017, chapter 3).

In this category, there is a “push and pull” effect, where also owners or masters of substandard vessels will offer bribes to try to change the outcome from an inspection (Cousins 2017). It's also important to consider the fact that refusing to pay bribes can in

some proven cases be three times more expensive for the shipper, than to agree on paying bribes (Sequeira & Djankov 2014, 31).

According to *Sequeira & Djankov 2010, 35*, the corruption can be divided into two main categories from the bribe payers' perspective. "Collusive" corruption is when the overall relative cost decreases and "coercive" corruption increases the relative cost.

#### **3.4.4 Political**

Political corruption can be seen when states use the PSC as a weapon or punishment toward their political enemies or rivals. Another type of political corruption is when member states will judge vessels differently, based on the flag's political relationship with the vessel's flag state. This type of political corruption could occur between neighbor states with great power distances.

This type of corruption is rarely spoken about. A shipping register that have brought up the issue is the Vanuatu Shipping register where chairman Thomas Bayer said that port state control could be misused, if two countries had a political falling out, as the vessels of one country could be detained by another country as a result. (San 1993, South China Morning Post)

#### **3.4.5 Status gain**

Status gain is the inspector's personal will to "Catch someone in the net and get personal acknowledgement". An example could be for a PSCO to detain a vessel that belongs to the highest ranked company, and afterward gain status based on the fact that the PSCO was able to detain a vessel from the highest ranked companies. (Research interviews 2018)

This type of corruption/abuse is perhaps not so usual but shipowners from different companies have reported that their crew have been witnessing PSCO phone calls bragging and laughing about their ability to find a detainable deficiency on well-known and respected shipping company vessels. (Research interviews 2018)

#### **3.4.6 Local interests**

This corruption type strives to accomplish as much business for the local community as possible, such as selling spare parts, repairs or provisions. An example is when authorities force the vessel to buy or order items because otherwise the vessel will encounter

“difficulties” with other authorities, such as custom inspections, PSC, quarantine inspection etc. Other means to accomplish business for the local community is to impend delays in loading or discharging operations, pilots availabilities etc. This is called petty corruption where officials will bend the rules in favor for friends or community. (Johnston 2017, chapter 3)

### **3.5 Tools used for abusing the system**

A study on corruption in South African Ports shows that authorities with most information on the shipment will have the broadest toolkit to extract bribes from different parts in the transport chain. The study suggests that customs for instance have a high extractive power when it comes to bribes and therefore have better chances to extract bribes, than their port colleagues with less information. (Sequeira & Djankov 2010, 25)

Furthermore, the study shows that customs involved in extracting bribes spend a lot of time on retrieving information on who is more likely to pay bribes and who is not. (Sequeira & Djankov 2010, 26)

#### **3.5.1 PSC inspection windows**

Normally a PSC inspection are conducted according to an inspection window. The time interval between inspections depending on the vessels ranking in the ship-risk-profile system maintained by the MOUs. (See appendix for more information on inspections windows and their function.) However, the PSCO always have the right to conduct PSC inspections onboard vessels, even that the inspection window are closed. When a PSC inspection are conducted outside of the inspection window, there is extraordinary circumstance. For example some kind of incident the vessel have been involved in or a concern, reported by the pilot or the VTS.

There has been reported cases where PSCO comes onboard, even when the inspection window for the specific vessel is closed. There was not either any extraordinary circumstance explaining the PSC inspection. It's understandable that this occurs when dealing with different MOUs. For example on a voyage from EU to Australia via South Africa, a vessel can encounter three PSC inspections, in different MOUs, within a month.

What's more surprising is when PSCO comes onboard in the same MOU and sometimes even in the same state. One of the interviewed shipping companies mentioned an example,



where one of their vessels were inspected in two South American ports belonging to the same state. The first visit resulted in a clean report, no deficiencies. During the second visit, the master of the vessel asked the PSCO why the vessel is subject for a new inspection, even though they were inspected less than a week ago in the same state. The PSCO replied that they are performing the inspection under a different MOU, in this case the Tokyo MOU and Vina Del Mar.

The examples above are not rare, Dr. Ozcayi mentions a similar example: Even though these cases are frustrating for the vessel's crew and shipowner, it also reveals a lack of consistency between the PSCO, conducting the exact same inspection just days in between each other and the outcome is totally different. (Ozcayir 2015, 1-7)

Naturally, the reduced inspection interval is not always negative, as a crew who has experienced more inspections will develop a customization towards inspections and it will be considered as a routine work task for the crew. (Hjorth 2015, 60)

### **3.5.2 Overload of crew and their rest hours**

The phenomenon, where different authorities overload the crew and their rest hours, is not always connected to corruption, rather lack of knowledge or understanding of the available onboard resources. Several of the shipowners mentioned during the interviews that inspections are carried out in ports with long pilotages. In some cases, the pilotage has been up to twelve hours before arrival. When the vessel came alongside the PSCO arrived onboard and in some cases conducts inspections for over eight hours including multiple inspectors. It has been reported that in some areas PSCOs in teams of eight board the vessel for inspections.

Above-mentioned amount of hours and PSCOs onboard will collapse the entire rest hour planning onboard. Meaning in worst case that the Master and Chief Engineer, who has most likely been on duty during the entire pilotage, will then be required to support and attend eight hours of inspection. After the inspection the departure will follow, and a new twelve hours pilotage. At this stage the crewmembers monitoring the pilotage is far from well rested. For the PSCO to put such a pressure on the crew is also a source for corruption methods. It's easier for a PSCO to extract bribes from a master who is fatigued than from a master who is well-rested and can negotiate for hours. A risk of unreasonable deficiencies and detentions will also increase, when fatigue and limited onboard human resources will create more room for misunderstandings and frustration between the two parties.

### **3.5.3 Threaten with additional consequences**

To threaten with additional consequences is a strategy that is widely used where the PSCO wants to extract bribes. The PSCO threatens the vessel's crew or owner with detentions, additional authority inspections for example custom or delays in port operation or pilotage. This strategy is in many cases successful, since any delays in operations will be very costly for the vessels and shipowners.

## **4 Result of research and discussion**

The research showed that the knowledge that the shipowners and their customers have about the different MOUs' inspection regimes is high. Most of the companies which have taken part in the research, state that they do closely follow up on the MOUs' weighting points, ship profiling and company performance results. Some of the shipowners prepare their vessels before each expected PSC in accordance with the calculated PSC inspection windows. They have designed designated checklists or guides for this purpose. When it comes to the vessels' crews understanding of the inspection regime, it seems to vary widely among the shipowners. It is seen that vessel crews are more aware of the effect a PSC result will have, if they belong to companies which have more demanding customers, for instance customers who follow "rightship" where PSC result is a factor that may trigger alerts. "Rightship" is a maritime risk management and environmental assessment organization, developed for the customers as a tool to grade and compare shipping providers with each other. Through this system, the customers can compare efficiency against economic aspects, such as shipping costs and shipping time.

Alerts in similar applications as "rightship" may make the customer choose another shipping provider. According to the interviews, customers from Asia, the Pacific region and the US are very well aware of the PSC outcome. These customers are more likely to change the shipping provider, based on the result of a PSC than when you compare to the European customers. One of the interviewed stated: *"For us as a bulk company the PSC result is the biggest contributing factor for vessel acceptance for the business."*

### **4.1 Political**

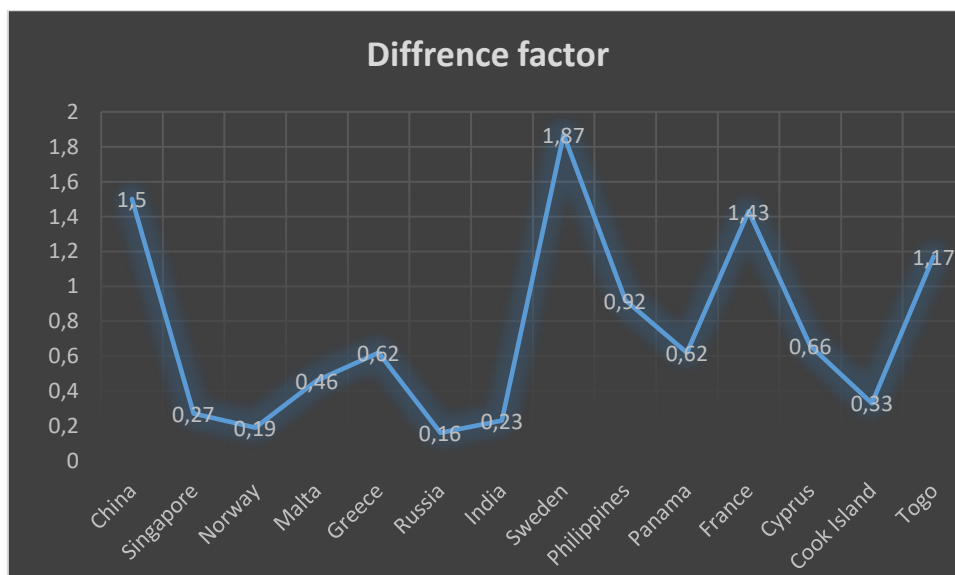
To be able to find possible sources for political corruption, this research has compared the White-Grey-Black list provided by Tokyo and Paris MOUs. The White-Grey-Black list is

published on yearly basis within the MOUs and it is a list of The different flags' performances. The vessels' flags which have the poorest PSC result will be listed on the black list and the flags with the best PSC performance will be listed as white.

Even if both MOUs have small differences in their weighting systems (chapter 3.4); the same method has been used for the annually published White-Grey-Black lists. (Explanatory notes for White-Grey-Black lists as appendix) Both MOUs are using the same method to determine the excess factor. The excess factor consists of inputs such as amount of inspections and amount of detentions combined through an algorithm. Paris MOU gives the following explanation why they have introduced the excess factor: *“To make the flags' performance comparable, the excess factor (EF) is introduced.”* (Paris MOU Procedures). Since the excess factor is determined in the exact same manner by Tokyo and Paris MOUs, the excess factor value can be used as an indicator for variations between the MOUs. If the inspections are conducted without external influence, the values in (Figure 1) will be close to zero and linearly among the different flags (Explanatory notes for excess factor as appendix). The following formula (1) has been used:

$$|DF = X - Y|$$

DF	Difference factor
X	Tokyo MOU excess factor
Y	Paris MOU excess factor

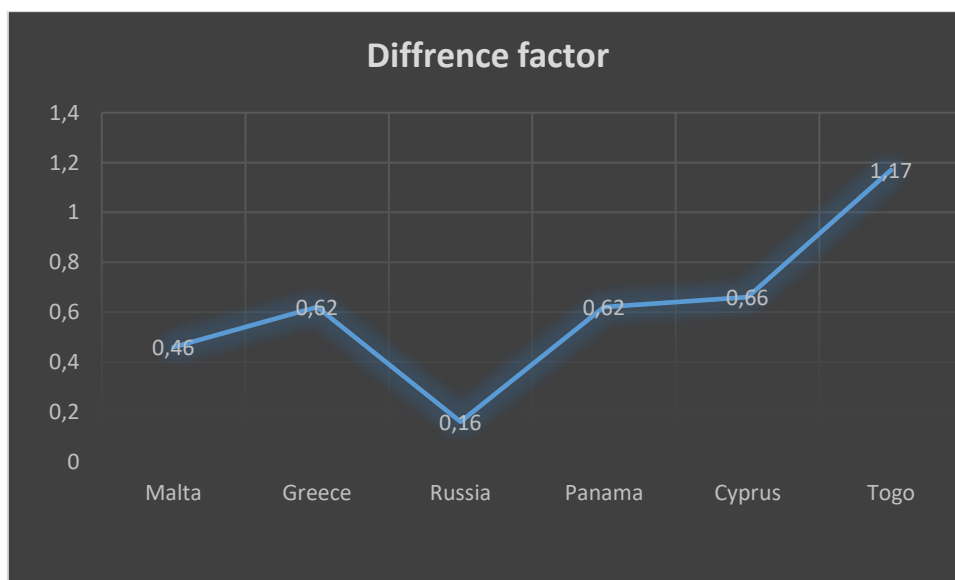


**Figure 1: Difference factor between Paris and Tokyo MOU's excess factor.**

The diagram above indicates that the inspection result for different flags vary widely depending on which MOU the inspections were conducted by. This indicates that the conducted inspections are not homogeneous between the MOUs. A value that will have a huge impact on the outcome from this comparison is the amount of inspections conducted on each flag.

When taking into account the amount of inspections, the outcome (Figure 1) needs to be analyzed in a different way. For example, Sweden only has 64 inspections in Tokyo MOU and 331 inspections in Paris MOU. Such a low number of inspections cannot be analyzed properly since only a few shipowners performance can affect the outcome significantly. As example, Sweden only have one shipowner trading Tokyo MOU during year 2017. Therefore, the figure of 64 inspection are a direct result of the performance of specific shipowners. By only analyzing flags that have similar or large inspection amounts in the two MOUs, we will remove a factor of uncertainty. This uncertainty can for instance depend on specific shipowner's poor performance, especial when the amount of inspections are low.

The MOUs have also considered the importance of the amount of inspections. In the White-Grey-Black lists, only flags with more than 30 inspections during a 3-year period are listed.



**Figure 2: Difference factor between Paris and Tokyo MOU's excess factor.**

The difference factor between Paris and Tokyo MOUs' excess factor indicates that inspections are not conducted in a homogeneous manner. In (Figure 2) only flags with similar or a large amount of inspections are presented. Based on (Figure 2), indications from

(Figure 1) can be confirmed: we can see that inspections are not made in a homogeneous way. If the inspections were homogeneous, the difference in the excess factor should be close to zero and linear among the different flags through the figure. Russia and Togo are the two states that stand out. For Togo for instance 17,5% of the inspections ended up in a detention in Paris MOU and in Tokyo MOU 13,7%. In total Togo encountered 399 inspections in Paris MOU and 393 inspections in Tokyo MOU. For Russia 4,8% of the inspections in Paris MOU end up in a detention, the corresponding number in Tokyo MOU is 5%. In total Russia encountered 1258 inspections in Paris MOU and 838 inspections in Tokyo MOU. Panama encountered 25664 inspections in Tokyo MOU and 6082 inspections in Paris MOU.

Since the excess factor can be compared strictly with each other, it is evident that the inspections are not done in a homogeneous way. We could argue that there is certain uncertainty in the comparison with excess factor, based on the fact that different types of vessels, with different standards, trade different areas. For example a big number of Chinese vessels arriving in Paris MOU belong to the same vessel category, for example ultra large container vessels, when again very few small Chinese general cargo ships will enter into Paris MOU's area. To argue that this causes the difference we can see in (Figure 2) would be incorrect, since it could be assumed that the larger vessels have more resources to maintain higher standards and therefore the Chinese flags ranking should be higher in Paris MOU than in Tokyo MOU, but this is not the case. China is not higher ranked in the Paris MOU than in Tokyo MOU.

To remove any doubts concerning the vessels types trading patterns, effects on the excess factors, a comparison has been done between the MOUs. (Table 2) are based on the MOUs' annual reports from 2017 and presents how many inspections are done on different vessel types.

**Table 2: Comparison between vessels types inspected in Paris MOU and Tokyo MOU. (Paris and Tokyo MOUs' annual report, 2017)**

Type of vessels	Inspections Paris MOU	Inspections Tokyo MOU	% of total amount of inspections (Paris)	% of total amount of inspections (Tokyo)	Difference
Cargo	8236	13618	45,97 %	43,49 %	2,48 %
Tanker and Passenger	7258	14135	40,51 %	45,14 %	-4,63 %

In (table 2) the vessels were divided into two groups. The “cargo” group includes container, bulk and general cargo vessels. Meaning vessels that are not given extra weighting point due to the vessel type as per the MOU’s ship risk profiling systems. The second group contains vessels that are given extra weighting point due to the vessel type. The second group, “tankers and passenger” includes oil tankers, chemical tankers, and passenger vessels. Because of the extra weighting points, the second group are more likely to have a shorter interval between inspections. In Paris MOU the two groups represent 86,48% of the total amount of inspections conducted in year 2017. In Tokyo MOU the corresponding figure is 88,62%. (Paris and Tokyo MOUs’ annual report, 2017)

As illustrated in (table 2), we can see that Tokyo MOU have 4,63% more inspections onboard vessels belonging to the group “tankers and passengers”. When it comes to “cargo” group the difference is smaller, 2,48% more cargo vessels are inspected in Paris MOU than in Tokyo MOU.

It should be noted that the MOUs do not have the exact same vessel categories. For example, Tokyo MOU have a different category for vehicle carriers, but in Paris MOU the vehicle carriers fall under RoRo cargo vessel alternately general cargo vessel. The ship risk profiling systems have small varieties. In Paris MOU, bulk carriers belong to the same category as tankers and passenger vessels. In Tokyo MOU container vessels belong to the “tanker and passenger” category. However to make the numbers comparable, bulk carriers and container vessels are both considered to belong to the “cargo” group in (table 2).

Based on the excess factor and that there are no major differences in type of vessels trading between the different MOUs, we can see indications for that a political motive may exist. To continue to discuss, the above indication, this thesis will introduce a case supporting the excess factor observation. The case will be introduced and discussed, in the next chapter.

## **4.2 The political case: Seven Finnish detentions in a two-week period**

Under a short time period in between the 27<sup>th</sup> of December 2017 and the 9<sup>th</sup> of January 2018, 22 Finnish flagged vessels called in Russian ports (Marine traffic 2018). Out of 22 port calls no less than eleven PSC inspections were conducted. These PSC inspections resulted in seven Finnish flagged vessels being detained and a total of 123 deficiencies being found onboard (Paris MOU inspection database 2019).

If we compare this amount of detentions with the last two years of records from the entire Paris MOU area, the Finnish flagged vessels had had six detentions in a two-year period. In this specific period consisting of two weeks in late 2017 and early 2018, the Finnish flag got seven detentions, all in Russian ports. (Paris MOU inspection database 2019)

The first sign on that something exceptional was going on, was when one vessel on the 27<sup>th</sup> of December 2017 had an inspection in a Russian port, even though their inspection window was closed during that time. The PSC inspection resulted in 14 deficiencies in total. The following day another Finnish flagged vessel got the informal information from Russian authorities that they will perform a PSC onboard, however that inspection was not conducted (Research interviews 2018). At the 28<sup>th</sup>, another Finnish flagged vessel got a PSC, again outside the inspection window, which resulted in four deficiencies (Paris MOU inspection database 2019).

During the next days, totally three Finnish flagged vessels called in different Russian ports and out of them, two had inspections and both of them were detained (Paris MOU inspection database 2019 ) (Marine traffic 2018).

Even though the incidents in Russia did not cause any major economic loss for the shipping companies involved, at least one of the shipowners was downgraded within the Paris MOU “ship risk profile” system. This causes the time interval between inspections to decrease and the vessels will have more inspections, due to the events in Russia (Paris MOU inspection database 2019). Another immeasurable economic loss is the amount of work hours that the company has spent on the incident. People both in the ashore and onboard management have spent many days of work on the cases. There has been discussion on higher levels, including authorities from both states (Research interviews 2018).

Out of all the Finnish flagged vessels detained in Russian ports during these incidents only one vessel did have an open inspection window. All the other inspections were conducted on doubtful grounds (Paris MOU inspection database 2019) (Research interviews 2018).

In one case, a Finnish flagged vessel status, in the Paris MOU database “Thetis”, was set to “detained” already before the PSC inspection had been conducted (Research interviews 2018). Another interesting fact was, according to the research interviews, that similar or the same detentions and deficiencies were given to the vessels (PSC inspection reports 2018).

Some of the shipowners appealed the detention as per Paris MOU procedures, however all appeals were declined by the Russian authorities (Research interviews 2018).

Through the international chamber of shipping and the Finnish shipowners' association, the shipowners were able to bring the case forward. The matter was discussed between Finnish and Russian representatives in the Paris MOU (Research interviews 2018). However, it was not brought up in the Paris MOU detention review panel, since this requires the shipowner supported by the flag, or Recognized Organization (RO), to bring it forward within 120 days after the detention release (Paris MOU).

The result from the discussion did not lead to any change or withdrawal of detentions given by Russia PSC. However, a few deficiencies were withdrawn but all detentions were according to Russians authorities, clear grounds for detention (Research interviews 2018).

### **4.3 Implementations of MOU procedures**

In this chapter, the thesis discusses the result of how the MOUs' procedures have been implemented, seen from a shipowner's perspective. Both Tokyo and Paris MOU have some of their procedures published for the public. The procedures have been written from a PSCO perspective, where many of the procedures, when it comes to ship risk profiling and company performance, are stipulated into details. But when looking at the procedures and rights from the shipowner's perspective there are shortcomings, like the instructions on how to appeal a detention. One of the interviewees described the ship risk profiling system as: *"Rather difficult profile factors to claim in case of unjustified detentions or deficiencies, it's very difficult to claim"*

Through the interview, it also became evident that the introduction of the MOU regimes and risk profiles, has reduced the amount of safety inspections for shipowners who are highly ranked in the rating system. However many states have come up with other type of inspections to get around the regulations and continue to inspect vessels in different ways although the shipowner and their vessel are highly ranked within the rating system. *"Certain environmental inspection types that are part of MSC China come onboard every time."* Another of the interviewed shipowners confirms by saying the following on the same interview question: *"Since they are doing less safety inspections or PSC they start to do all kinds of other funny inspections MLC, Environmental etc."*



*“The numbers of the inspections just remain the same”*. One of the interviewed shipowners stated (all their vessels are low or standard risk vessels, and should experience less inspections than before the introduction of the risk profiling system.) These experiences are also supported by the shipowner’s association, which confirms that this is what other shipowners experience as well. (Research interviews 2018)

During the interviews one of the shipowners mention an example about the states lack of effectiveness when it comes to implementing the MOUs’ procedures. The shipowner mentioned about a case where a state belong to a certain MOU but will despite of that follow their own selecting scheme for vessels to inspect.

The case reported by a shipowner was when the shipowner sent a request to AMSA asking why their vessel had been inspected, even though the inspection window was closed. The reply was that they do not consider inspections done in other parts of the Tokyo MOU, they will just consider inspection done in New Zealand. In addition, they informed that they will inspect one of the company’s vessels on every occasion when it calls Australia due to an earlier recorded detention, even though the specific vessel’s inspection window was closed (Research interviews 2018). In chapter, (3.5.1) similar examples was mentioned and now confirmed trough the interviews.

#### **4.4 Appeal of PSC inspections**

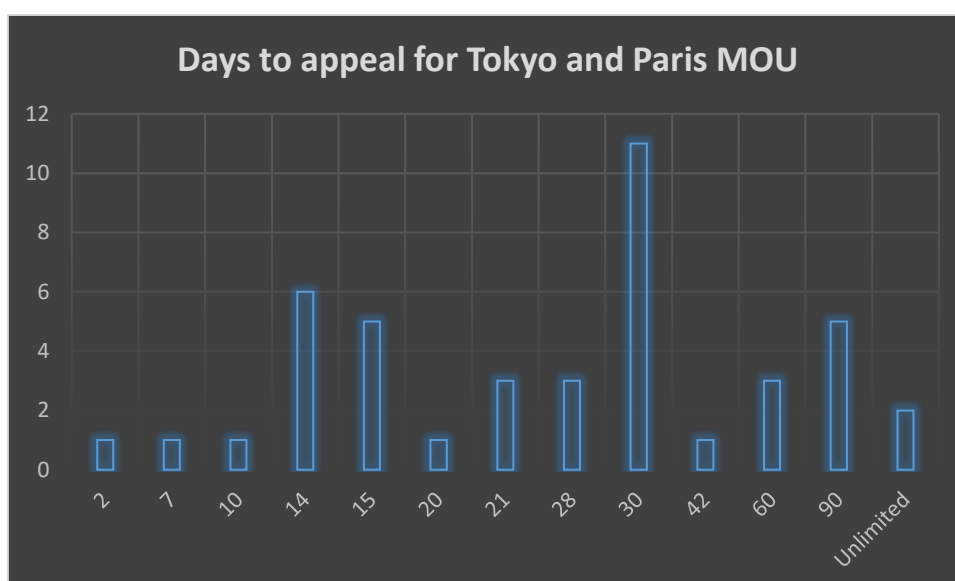
A problem, concerning appeals, has been identified during the interviews were shipowners suffer from weak support from their own flag state. There have been instances where the flag state is afraid to make or support an appeal against other more powerful flag states. One of the interviewed shipowners explained the lack of support by their flag as *“They (the flag) make so many problems so that you know that they are not going to support you”*. All flag states have slightly different approaches when it comes to how they support their shipowners in an appeal process. During the interviews, it was evident that at least two of the interviewed shipowners had suffered from lack of the support from the flag state during an appeal process. In both cases, the flags were relatively small and were up for an appeal against a much more powerful flag or state. With lack of support from flag state or RO, the shipowner cannot, according to today’s Paris MOU procedure bring up a case to the detention review panel.

*“In case an owner or operator declines to use the National appeal procedure but still wishes to complain about a detention decision, such a*

*complaint should be sent to the flag State or the recognized organization (if authorized to act for the flag State).” (Paris MOU*

Another issue that has been brought up is the lack of “grace periods” to appeal against the result of an inspection before they become available for the public through the MOUs’ databases. A grace period would give the shipowner a fair chance to appeal against any deficiencies or detentions. At the same time, there would be chances for the PSCO to withdraw unjustified inspection results, without the decision being exposed to the public.

A concern when it comes to appeals is the procedures that are given to the shipowners. The appeals are handled differently by each member state. In addition to the difference in time frame for the appeals, there are also issues concerning the language. Out of 39 MOU member states, four required the appeal to be written in another language than English (Tokyo and Paris MOU appeal procedures). The language requirement in combination with very strict time limit, concerning how many days the shipowner can file an appeal, makes the MOUs’ procedures almost impossible to fulfill for the shipowner.



**Figure 3 Tokyo and Paris MOUs, how many days the shipowner has to make the appeal of a detention within different member states (Tokyo MOU national appeal procedures 2018, 1-29 and Paris MOU national appeal procedures 2018, 1-33).**

Many of the interviewed shipowners have attempted to appeal detentions. None of them have won the cases and had their appeals justified. One of the interviewed shipowners said that appealing is “*a complete waste of time*”. It is remarkable that out of 809 cargo vessels, with an overall significant experience concerning PSC, none of the fleets, shipowners have

been able to successfully appeal against a detention. All interviewed shipowners claim to have experienced unjustified detention at least once. Based on the average detention rate of 3,63% in Paris MOU, a fleet of 809 vessels would experience 29,4 detentions per 809 inspections.

Concerning deficiencies and how they are recorded in the final PSC report, it's common that a code 17 or 30 is given for minor faults. The PSC reports that shipowners have made available for the research show that minor faults are often given code 17, rectify before departure. This is not in line with the IMO Resolution A.1052(27), that states:

*2.3.6 It should be recognized that all equipment is subject to failure and spares or replacement parts may not be readily available. In such cases, undue delay should not be caused if, in the opinion of the PSCO, safe alternative arrangements have been made.”*

Many of today's detentions are recorded as an ISM related detention and these are almost impossible to appeal since the ISM code is all about “soft values”, one interviewed shipowner states. In case of a detainable ISM deficiency, it is almost impossible to prove that the detention is unjustified. Based on the PSC inspection records that this research has taken part of, many of the ISM detentions refer to another deficiency. Example on ISM detention referring to another deficiency:

1. *“Starboard navigational light on freefall lifeboat out of order”*. Code 17 (Rectify before departure)
2. *“As evident by deficiency (1), the company's ISM system is not fully implemented onboard”* Code 30 (Detained)<sup>1</sup>

If we again refer to above mentioned IMO Resolution A.1052(27), IMO Resolution's guidelines for the PSCO are clear, an ISM detention is not relevant for a minor failure as a single busted navigational light.

During the interview with the shipowners it became clear that the appeal procedures, when it comes to deficiency, must be better stated and clearer. On the question about the shipowners nonexistent possibilities to appeal against the deficiencies (Tokyo MOU) one shipowner stated:

---

<sup>1</sup> Explanatory note by author: in the company's ISM system it has been stated that monthly and weekly inspections of lifeboat equipment shall be conducted.

*“In the end these deficiencies are accumulated against the vessel..... and it is difficult to convince the customers in this kind of situations that the deficiency is not fair and you can lose the business”.*

Another shipowner suggested a solution for the problem:

*“The matter should be discussed with the MOUs if there would be a possibility, on their web page database, for “shipowners comments” for deficiencies that would be open for everyone. Then all who read the database would see that the shipowner does not agree on the deficiency for this and that reason.... This would work as a trigger for everyone that maybe there is something with this deficiency; it could be right or not right. This system should be considered specially with “rightship” and all customers in these days this would be a good thing”*

As per today in Tokyo MOU there is no information on how to appeal against deficiencies. In Paris MOU the only written procedure says appeals against deficiencies shall be handled as following; *“When the company is of the opinion that deficiencies identified are not justified, the company can raise an appeal to the national PSC authority.”* No future instruction on how to proceed was found on their web page as per February 2019.

Some companies explained that they have appealed deficiencies in Tokyo MOU by sending e-mail to the PSCO and questioned the deficiency and that the outcome sometimes has been to the shipowner’s favor and the deficiency has been removed from the database by the PSCO. The conclusion from this discussion is that for the shipowner, there is no available, uniform way or procedure which indicates how to appeal deficiencies.

#### **4.5 Corruption and Bribery**

The outcome from this research is very well in line with the corruption perception index, which is announced yearly by the transparency international association. An extract from the index can be seen in (Table 1). The indication from the shipowners, concerning where the biggest challenges are when it comes to corruptions, is similar with what the yearly corruption perception index indicates. During the interviews, a question concerning unjustified detentions and deficiencies was discussed and one of the interviewees answered: *“There is (sic.) certain areas around the world where this kind of performance is well known by the industry... Ukraine, Russia, Brazil and Nigeria. In these countries we see huge unjustified situations”.*

Russia and China have been mentioned repeatedly by the shipowners as countries where they have experienced PSC corruption. Even though Ukraine is not a member state of neither Paris nor Tokyo MOU, this research strongly indicates that the ranking on the corruption perception index corresponds with the shipowners' PSC experiences in Ukraine, as one of the most corrupted countries in Europe.

All MOUs, except Tokyo and Caribbean MOUs, have incorporated a resolution that states that the PSCO, when conducting onboard inspections, must not have any commercial interest. To insure impartiality by the PSCO, the resolution forbids the PSCO to be employed or engaged in any RO.

#### **4.6 Local interests**

Through the interviews, it's evident that many attempts to extract bribes are for the local interests. One of the interviewed shipowners stated, when asked what kind of bribes interest PSCOs:

*“It's everything; maintenance services, bribes, cousin who has a repair company any service and so on. Cousins or brothers, you have to go otherwise the vessel will not be allowed to sail”.*

In the interviews, a new type of support for the local community has been brought up. One source gave an example on Russia, Nigeria and Ukraine: *“In some countries we (shipowner) are not looking after the safety of the ship and crew we are mostly looking after the own interests of the PSCO”*. Another shipowner claimed that in some countries, especially in Ukraine and in Russia, there is a connection between class surveyors and PSC, where the classification societies accumulate their income, based on the PSCO findings onboard. As mentioned in chapter (3.1), both Paris and Black Sea MOUs have incorporated the resolution that states that they may not be engaged with the RO to ensure impartiality (IMO Resolution A.1052(27))

For instance environmental or MLC (Marine Labor Convention) inspections that often result in fines for the shipowners or force the shipowner to support local interests are seen. One of the interviewed shipowners had experienced an unjustified detention in Indonesia, Tokyo MOU. The PSCOs had tried to sell items to the crew and when the crew refused to buy the items, the vessel was detained.

## **4.7 Status gain**

During the interview, it is evident that PSCO personality and personal attitudes towards inspections have a big effect on the outcome of an inspection. During the interview, specific inspector names and names of ports pop up time after time as examples on how much power a single inspector may have. The inspector's need for "status gain" through inspections occurs in both Paris and Tokyo MOUs, including AMSA. However, none of the cases mentioned during the interviews concerned the USCG.

Potentially the reason could be that PSCOs representing the USCG often comes onboard in teams of 4-8 PSCOs and that will make any kind of unjustified remarks or corruption hard to perform. During USCG inspections, the PSCOs will be escorted around the vessel in small teams or in pairs meaning that a PSCO will not be alone with a crewmember and therefore the risk of attempts to extract bribes will decrease. Another safety measure the USCG has implemented is that they write down the full legal reference in the PSC protocol, meaning that it will not be possible to refer to faulty or nonexistent regulations.

## **4.8 PSC outcome and classification society**

In most cases, the classification societies can assist the shipowner when it comes to detentions and deficiencies given by the PSCO. However, in some areas the interviews indicate that the classification societies will not give support to the shipowners, possibly because of political fears. One example from an interviewed shipowner is from China, where a vessel had documents on a lifeboat arrangement that had been approved by both classification society and flag state, but despite this, the PSCO claimed it was not correct. The shipowner approached the classification society, got the response that this is not their major responsibility, and left the shipowner on his own. Parallels between this case and the Lantau Peak case mentioned in chapter (3.3) can be seen clearly. In the Lantau Peak case the shipowner pays the classifications societies to make measurements during the 20year docking. Then, a few months later, the vessel was detained concerning the items that the class a few months earlier had inspected and approved.

## 4.9 Economic effects of unjustified detentions or deficiencies

None of the interviewed shipowners has a system where they estimate or calculate how big the economic losses are due to unjustified PSC performance. However, some of the shipowners can estimate the losses based on off-hire. One shipowner claimed that they lost 50 000 US\$ during an detention in Australia, Tokyo MOU. A detention that later was appealed but without a positive outcome.

When it comes to countries which are well known for doubtful PSCs, the interviewed shipowners indicate that the PSC authorities are specialists when it comes to arranging the detention, so that they are only valid as long as the vessel is loading. Therefore, the detention causes no or little off hire for the vessel, but will create a political statement towards the vessel's flag or owner. (Research interviews 2018)

## 4.10 PSC reports

One of the basic rights for the vessels and shipowners is to have a reference to the regulations that support the PSCO decision to give a deficiency or detention. Based on the research, this is done properly by the PSCO in Paris MOU, AMSA and the USCG. However, there are major shortcomings in the references in for example China. Sometimes the shipowners experience that the references are missing totally or refer to the wrong regulation. Some of the shipowners claim that the references to the ISM code are often used in an unreasonable way and are not justified.

There are also problems and different ways of working when it comes to reports of an inspection. For instance, a problem that shipowners have experienced in China is that the PSCO only writes a report if they find any deficiency, if the inspection is clean, they will not write a report or enter any details into the Tokyo MOU's database. *"In China they are coming onboard and if they find a deficiency they put it on paper, but if they are coming onboard and find no deficiency they do not prepare the report."* This will then cause the vessel to be object to a new inspection in the next port of call. And this despite the fact that they already had an inspection at the last port of call. In this way, the PSCO can entirely get around the Tokyo MOU's system.

#### **4.11 Bribe types and amounts**

In 2015 the UK anti-bribery act forced many shipping companies to change their approach towards bribes given from vessels to different authorities around the world. The effect of the UK act was very evident during the interviews. A perhaps surprising outcome from this research is that none of the interviewed shipowners give bribes in form of cash. If an authority insists on cash, some of the shipowners will agree with the requirement that the bribe transfer will be recorded on video or documented with a receipt.

Even though the bribes in form of cash is non-existing, there are still cases where the vessels are forced to give “gifts” in form of cigarettes, spirits or food. Also this type of direct bribes has reduced drastically after the introduction of the UK anti-bribery act 2015. Based on the interviews, we can see a huge variety among the shipowners. Some have a strict anti-bribery policy and will not give anything anywhere and others are more willing to provide “gifts” to different authorities, to make the port calls smoother.

None of the interviewed shipowners has offered bribes to the PSCO to try to change the outcome from a PSC inspection. One of the interviewed shipowners stated: *“We have a strict anti-bribery policy, we are open for discussion in terms of the bribe transfer to be recorded.”*

#### **4.12 Detention and Deficiency rates**

When comparing the amount of conducted PSC inspections in Australia with PSC inspection conducted by other states, it is evident that there is a higher detention rate per inspection in Australia than compared with other Tokyo MOU members. Only China had a higher detention rate than Australia during the period 21 FEB 2016 to 21 FEB 2019. That China have the highest detention rate, can partly be explained by the detail, earlier mentioned in (chapter 4.10), where shipowners claim that they have experienced inspections in China, resulting in a “clean report” which means that it has not been filed in the Tokyo MOU’s database. To not, register “clean reports” will cause the detention rate to be misleading.



(2)

$$Z = I - D$$

$$R = \frac{Z}{I}$$

$$R\% = R * 100$$

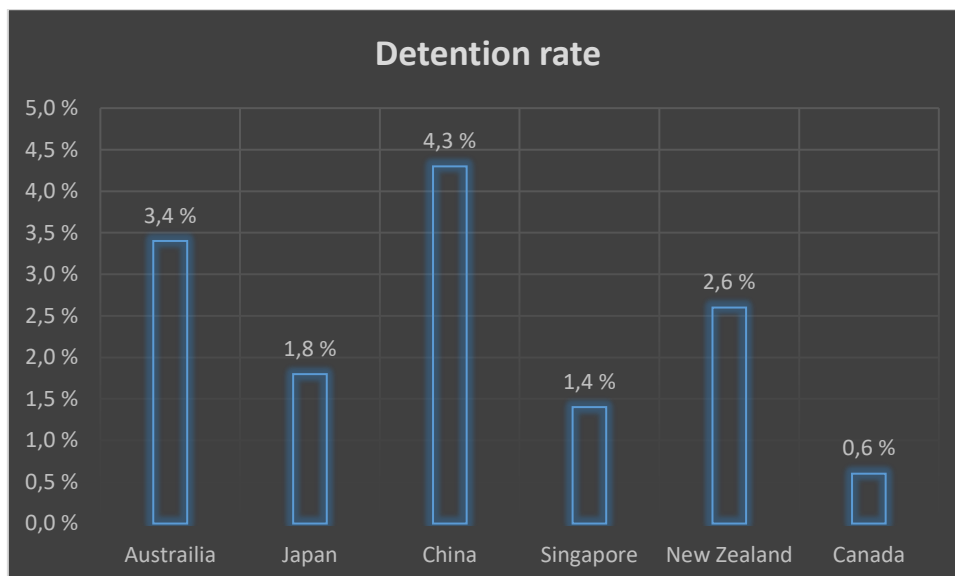
$$DR = 100 - R\%$$

I Total amount of inspection

D Total amount of Detentions/Deficiencies

DR Detention/Deficiency Rate

R% % of "clean report" insp. vs. total amount of insp.



**Figure 4** The data illustrates how many percentages of the inspections conducted end in a detention

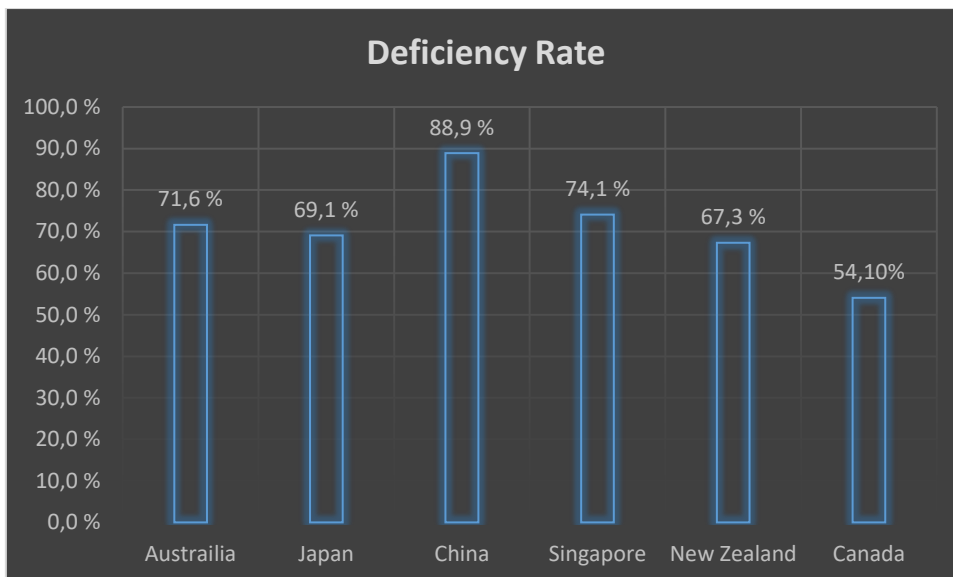
Comparing the amount of PSC that have been conducted on Australian flagged vessels, the number is low in relation to the numbers of inspections conducted by the Australian authority (AMSA). During the same three-year period as mentioned above, the Australian flag has only encountered 29 PSC inspections in Tokyo MOU and none in Paris MOU. Compared to Japan that has encountered 862 inspections in Tokyo MOU and 137 in Paris MOU.

**Table 3** Conducted inspections and given detentions and deficiencies per state. (Paris and Tokyo MOUs' databases)

	Inspections	Detentions	Deficiencies
Australia	16714	575	11971
Japan	21506	395	14855
China	27969	1177	24125
Singapore	4455	64	3301
New Zealand	965	25	649
Canada	1712	11	926

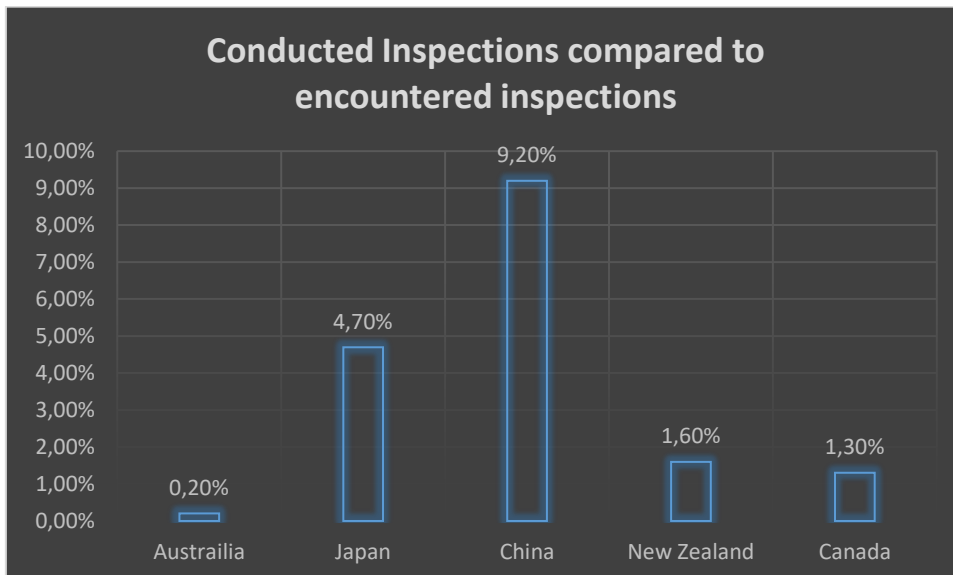
Another state that is similar to Australia concerning small fleet but large amount of inspections is Canada. As seen in (table 3), during the same period as above, Canadian flagged vessels have encountered 23 inspections in Paris MOU and none in Tokyo MOU but

they have conducted a total of 1712 PSC inspections (Both in Paris and Tokyo MOU). However, Canada has, in opposite to Australia, a very low detention and deficiency rate.



**Figure 5** The data illustrates how many percentages of the inspections conducted end in one or more deficiencies.

As illustrated in (Figure 6) the state, aside from China, with the highest detention rate is also the state with the lowest index on conducted/encountered inspections. This fact is also in line with the outcome from the interviews, where some shipowners believed that states with a small international fleet are more likely to have a higher detention rate than states with a large fleet like for example Singapore. One of the interviewed shipowners stated: “*Australia is contaminating the system*”. Australian flag has only encounter 0, 20% PSC inspections compared to how many PSC inspections they conducted, (Figure 7). The presented figures confirms that both Australian and New Zealand, which have a small international fleet is more likely to issue detentions compares to Japan and Singapore.



**Figure 6** The data illustrates the relations between how many inspections conducted and how many inspections their flag has encountered in other states in Paris and Tokyo MOU. Singapore was excluded from the figure since the values was non-proportional compared to the other values. The figure for Singapore is 238%. (Tokyo and Paris MOUs' databases)

#### **4.13 Shipowners measures against unjustified deficiencies or detentions**

During the interview, it was clear that shipowners have come up with different solutions to try to protect themselves against unjustified deficiencies and detentions. Below follow some examples on what measures shipowners are using. The shipowners find these effective to some extent and therefore mentioned below. The fact that the shipowners have created own systems indicates that the MOU's systems are lacking in their effort to support the shipowner with equitable procedures.

- 24/7 hotline, vessels need to call the shipowners if any remarks in the PSC protocol. The shipowner will then be able to make rapid decisions to prevent or rectify a remark. Many times remarks can be due to misunderstandings and with support from the shore organization can be explained and written off as irrelevant.
- CCTV recording of PSC inspection carried out onboard, to be able to have evidence in case of an unjustified remark. To have CCTV records also minimize the risk for attempts to extract bribes or any other kind of bad behavior.
- PSC book, where a shipowner has compiled all misinterpretations concerning PSC remarks. For examples, all statements made by flag, class, MSA or manufactures that deviate from normal IMO regulations. It is impossible for PSCO to know all flags deviations from normal IMO regulations. It will create room for misunderstandings if not properly documented and available onboard. To have a PSC book is a smart way for the shipowners to avoid any unjustified remark.
- Collecting massive databases with inspections to determine trends for areas, ports or inspectors. One of the shipowners had a database collected during 18 years' time containing the records of 5000 inspections. The records can later be used as pre-inspection checklists for the vessels to prepare for upcoming PSC.
- Avoid keeping attractive bribe items onboard, such as large amount of cash, cigarettes or spirits. When corrupted authorities knows that there is no attractive bribes onboard the attempts to extract bribes will decrease by time.

## **5 Conclusions**

A general conclusion is that the MOUs and states many times run a “one-man-game”. Examples on this is for instance the case in early 2017, where several of the major shipping associations contacted the MOUs and urged that the PSC corruption is a severe problem that needs to be solved and they suggested that a fully independent internal affairs review panel needs to be established, to confidentially assess any complaints of corruption or negligence. This was declined by the MOUs, even though there are more than 120 members who confirm corruption during PSC. The MOUs need to make more effort to make the PSC systems and procedures fair and more effective. What makes the problem so delicate is that the MOUs have no or very limited legal power to enforce penalties for non-procedure compliers.

### **5.1 Different types of corruptions and bribes within the PSC regimes**

One conclusion from the research is that corruption, in its different forms, exists under both Paris and Tokyo MOU. The corruption types vary between different states but corruption, in its different forms, is present within the MOUs. We must remind ourselves that corruption not always includes bribes; it could also include status gain or political corruption. However, the most corrupted PSCOs are found in countries with a low ranking in the annual corruption perception index. Political corruption was mentioned in the interviews. Corruption was confirmed by the indication of inspections not done in a homogeneous way when comparing the excess factor between the different MOUs. The excess factor reliability is high since it has been calculated in the exact same in both MOUs.

Concerning briberies and their types, this research has concluded that monetary bribes are rare and bribes given by vessels are decreasing, since the introduction of the UK anti-bribery act that put high demands on the shipowners to reduce the amount of bribes.

Paris and Tokyo MOUs need to create surveillance systems, where states, which represent most of the injustice, must take the consequences of their lack of professionalism. In this research, shipowners have mentioned Russia, China and Ukraine as states with PSC corruption challenges. Even though Ukraine is not part of neither Tokyo nor Paris MOU, it's worth mentioning that the research has shown that there are major challenges when it comes to corruption and unjustified detentions in Ukraine.

Conclusions based on the literature suggest that the MOUs should strive for a system with less personal contact, in order to reduce the opportunities to extract bribes. To request copies

of all certificates before a vessel arrives would save both time onboard and reduce personal contact. In today's shipping world, time is always scarce, and crewmembers are struggling to operate within regulated working hours. Another way to reduce opportunities for extracting bribes would be to increase the number of PSCOs onboard in the same manner as the USCG does. However, that will also require good communication before the vessel arrives at ports, so that the onboard management is given a possibility to plan their rest hours accordingly.

## **5.2 Conclusion on the political case: Seven Finnish detentions in a two-week period**

Even though the case has not been to trial, there are many factors involved which indicate the case to be affected by political corruption. Below are some of the details indicating that the PSC inspections, targeting Finnish flagged vessels, were requested by an underlying political interest. In one case, a Finnish flagged vessel status, in the Paris MOU database "Thetis", was set to "detained" before the PSC inspection had been conducted (Research interviews 2018). This incident could be considered as strong evidence for the detention to be planned on forehand. However, in order to bring this evidence forward it would require a legal process in the Russian justice system. This would require huge resources and an impartial trial would be difficult to guarantee.

Based on the PSC reports from 2018, that this research analyzed it's obvious that many of the deficiencies were written in such a general way that it was hard afterwards to know exactly what the deficiency concerned. This will create deficiencies that are extremely complex to appeal against or bring up to trial.

According to the research interviews, it was evident that similar or the same detentions and deficiencies were given to the different vessels (PSC inspection reports 2018). One of these "standard" deficiencies was that the vessels were asked to perform a fire drill and the result of these fire drills resulted in deficiencies in the PSC protocol. Other "standard" deficiencies was deficiencies concerning the records of seafarers' daily hours of work or rest and the ISM implementation.

These deficiencies where given in different ports according to the Paris MOU database. The remarks similarities would most likely not exist if the PSC inspections were conducted without any underlying requests.

One could claim that the focus on certain area could be a result of a CIC (concentrated inspection campaign). Which is a focus area, selected by the Paris MOU, which the PSCOs concentrates on during a PSC. However, the Paris MOU CIC during 2017 was on “Safety of Navigation, including ECDIS” (Paris MOU CIC result). None of the earlier mentioned “standard” deficiencies can be assorted under that category. Additionally CICs are carried out, annually, during September-November.

### **5.3 The legal status of the MOUs and the shipowners’ rights and possibilities to justice**

The research suggests that the MOUs should make some effort to make their procedures more shipowner friendly. There is a need to make the detention appeal instructions more clear and create a tool in the system, in which shipowners can “flag” inspection results which they consider as unjustified or which they have made an effort to appeal. In this way, the reporting system for PSC result would be equal for the shipowners, and their customers. The shipowners heavily depend on the PSC results in the database to maintain their customers. During the interviews, one shipowner stated: *“The ship risk factor is not always relevant and justified”*. The appeal procedures concerning deficiencies must be a clear process, in order for the shipowner to have a chance to equitable records, which will many times affect the customer’s interest in a shipping company.

A grace period before deficiencies and detentions become public would benefit all parties concerned. The shipowner would have a chance to appeal and avoid losing customers, based on unjustified detentions or deficiencies. Possibly, it would be easier for a PSCO to withdraw faulty deficiencies or detentions without risking feeling embarrassment, for issuing an unjustified deficiency or detention, if the report has not been published to the public.

The ISM detentions are problematic in many ways and it is often used as “override” for the PSCO to give a detention for a minor deficiency. An ISM deficiency is already far more severe than a normal deficiency, when it comes to how Tokyo and Paris MOU calculate the company performance. From the shipowners’ justice point of view, it is problematic if an ISM deficiency is classed as a detainable deficiency, since the references to the regulations many times are inexplicit. This suggests that in a coequal system, an ISM deficiency cannot be a detainable deficiency.

Even though unjustified deficiencies and detentions mostly have a negative effect on the shipowner, they will also result in a positive effect in the matter, when the reduction in

inspection intervals will expose the crewmembers to more inspections. Consequently, the crewmembers' knowledge and experience of inspections and maritime legislation will improve.

Generally speaking, the shipowners seem to be satisfied with the MOUs' risk profile system, where shipowners who have high standard vessels can enjoy longer intervals between inspections. However, a concern on new types of inspections has been confirmed by several shipowners, where the number of inspections just remain the same but with different naming, such as environmental, quarantine and MLC inspections.

From the shipowners' perspective, it seems many times that they are spending a lot of resources to comply with regulations and spend a lot of economic resources on approved certificates, class surveys and flag state approvals etc. Despite these efforts, they may face a PSC who is interpreting the regulations differently and causes detentions. When this occurs the shipowner is many times left alone without support from the RO or flag state. Panagiotis Nikiteas an HSQE Manager / DPA / CSO of a shipping company describes the situation from his point of view as:

*“As it is known vessels are controlled from the day-one of their creation, i.e. from the very date of their keel-laying date. The Flag States exercise control through ratified and additional regulations, some even do inspections; Recognized Organizations (ROs) set rules, approve designs and plans, monitor construction and perform surveys and audits; underwriters also survey their ships. Common purpose of these functions was, is and will be the eradication of substandard ships and the protection of seafarers' lives and the marine environment. In the chain of responsibility, ultimately responsible for the safety of a vessel at sea remains the shipowner and the appointed management company.”*  
(Nikiteas 2017)

When taking into consideration the Lantau Peak case and the fact that none of the shipowners representing a fleet of 809 cargo vessels, taking part in this research has successfully been able to appeal a detention, the conclusion can be made that shipowners stand without any true legal rights or possibilities, when trying to exculpate themselves from an unjustified detention. The PSC regimes are like a justice system without any true possibilities to appeal against the given verdict.



## 6 Critical review and suggestion for future research

Something that has to be taken into consideration when discussing the results, is the taboo prevailing the research area. Some of the approached shipowners/ shipowners' associations declined to take part in this research. This could be interpreted as if these shipowners/ shipowners' associations fear for future punishments if they provide information about the subject. Alternatively, some of the shipowners/ shipowners' associations declining the interview request are part of a corruption chain. One of the interviewed also confirms this by stating: "You will have a difficult time to find people who want to talk about this." Another one said "I can talk, but not now, too many people are listening.", when I approached a possible interviewee during a maritime event. Later on, I received the information that some of the high authorities in a European port sat behind us, known for their questionable approach towards "gifts".

This thesis was using the excess factor as a possibility to look into how homogenous the inspections results are between Paris and Tokyo MOU. Generally, the excess factor is very reliable since it is calculated in the exact same way in the both MOUs. The excess factor are part of the MOUs' White-Grey-Black lists. The MOUs have limited the list to include flags that have experience 30 inspections or more during the last 3-year period. By doing so, the reliability for the excess factor improves.

The way of using the excess factor in this thesis have a minor uncertainly. The uncertainly is based on what type of vessel trade the different MOUs. After researching what type of vessels are inspected in which MOU it was found that 4, 63% more tankers and passenger vessels are inspected in Tokyo MOU than in Paris MOU. Tankers and passenger vessels have, more weighting point to begin with, as explained in (chapter 4.1). Therefore, the interval of inspections are in most cases shorter. That could indicate that the vessels inspected in Tokyo MOU is slightly more experienced when it comes to inspections than vessels inspected in Paris MOU. If we assume that the vessels in Tokyo MOU is more experience, the excess factor must overall be lower in Tokyo MOU than in Paris MOU. When comparing the average excess factor between Paris and Tokyo MOU one can determine that this is not the case. The average excess factor different between the MOUs are 0, 0400, this could be considered as insignificant.

Concerning the research method selected for this study it served the research purpose well. However the research and the result of the research mostly relays on verbal sources. Verbal sources can be problematic. As an examples the political case, discussed in the thesis, where some information are based on telephone calls between the vessel and the onshore management. These instances is not possible to verify in any other way neither verified by documentations.

A suggestion for future research is to make a study on the PSCOs training requirements and experiences. How does it affect the outcome of a PSC? The education level and experience requirements of the PSCOs can be questioned in cases where the same PSCO's names are mentioned repeatedly when discussing unjustified PSC. This indicates the need of a scientifically research relating to the subject.

It would be interesting to make a wider research concerning an indication revealed in this thesis. It was indicated that states with a small international fleet are more likely to have a higher detention rate. The indication was also supported by the interviews where these states was mentioned as the states that require most of the shipowners attention during PSC. In this thesis, the comparison only included a few selected states. It would be interesting to perform a wider research, including more states, to see if the indication can be confirmed.

## Bibliography

- Banerjee A. 1997. “A theory of Misgovernance”, Quarterly Journal of Economics.
- Canada v. Berhad, 2005. Federal Court of Appeal Decisions. Neutral citation:2005 FCA 267  
File numbers A-237-04. [Online]  
<https://decisions.fca-caf.gc.ca/fca-caf/decisions/en/item/33343/index.do> [Retrieve on the  
18th of June 2018]
- Cousins S, 2017. “The war against port state corruption”. [Online]  
[https://fairplay.ihs.com/safety-regulation/article/4280521/the-war-against-port-state-  
corruption](https://fairplay.ihs.com/safety-regulation/article/4280521/the-war-against-port-state-corruption) [Retrieved on the 21<sup>st</sup> of June 2018]
- Hjoth F. 2015. “Complexity and Ambivalence in Ship Safety Inspection– The view of  
Swedish Port state control officers” Linnaeus University Press.
- IMO Resolution A.1052(27)
- Kuchytskyy A, 2012. “Legal Aspects of Port State Control” Faculty of Law Lund University.
- Johnston M. 2017. “Political Corruption: Reading in Comparative Analysis” By Routledge  
New York.
- McNamara C, 2009. “General Guidelines for Conducting Research Interviews” [Online]  
<http://managementhelp.org/evaluatn/intrview.htm> [Retrieved on the 21<sup>st</sup> of June 2018]
- Maximo et all, Maximo Q. Mejia Jr., Pierre Cariou, François-Charles Wolff. 2010. “Vessels  
at risk and the effectiveness of Port State Control inspections” World Maritime University.
- Nikiteas P. “Port State Control inspections – Panacea or Curse?” Published by Safety4Sea.  
10 OCT 2017.
- Paris MOU inspection database. [Online]  
<https://www.parismou.org/inspection-search/inspection-search> [Retrieved on the 22nd of  
February 2019]

PSC inspection report, from conducted PSC inspections onboard during 2017 and 2018. Source Confidential.

San J. “Politics not a port state control issue”, published 6<sup>th</sup> of August 1993. In South China Morning Post. [Online]

<http://www.scmp.com/article/39391/politics-not-port-state-control-issue> [Retrieved at the 21st of June 2018]

Sequeira S. and Djankov S. 2010. “An Empirical Study of Corruption in Ports”. London School of Economics.

Sequeira S. and Djankov S. 2014. “Corruption and firm behavior: Evidence from African Ports”. London School of Economics.

Splash, 2015 ‘Shipping exposed to more corruption than any other industry’. [Online] <https://splash247.com/trace-shipping-exposed-to-more-corruption-than-any-other-industry/> [Retrieved on the 22nd of February 2019]

Svensson J, 2002. “Who Must Pay Bribes and How Much? Evidence from a cross-section of Firms”. Institute for International Economic Studies, Stockholm.

U.N. Convention, supra note 4, Preamble

Tokyo MOU [Online]

<http://www.tokyo-mou.org/> [Retrieved on the 21st of February 2019]

Turner D. 2010. “Qualitative Interview Design: A Practical Guide for Novice Investigators”. Nova Southeastern University.

Transparency. [Online]

<https://www.transparency.org/> [Retrieved on the 21st of February 2019]

Ozcayir Ö. 2015. “Port State Control Second edition” by informa law from Routledge, New York.

Wolff & Cariou, 2010. “Do Port State Control inspections influence flag- and class-hopping phenomena in shipping?” Word Maritime University.

# Appendix 1

Questions used as Interview base

## General

1. Describe the procedures in your company concerning PSC ship risk profile and follow up on PSC results?
2. What kind of procedures do your customers use for follow up on the PSC results?
3. What level of understanding or knowledge would you say that your crew onboard the vessels have about PSC system and results?
4. What is your thoughts about the introduction of the MOU's and ship risk profiles?

## Political/Bribes/Local interest's/ status gain

5. What kind of experiences do your company have concerning PSC abuse or injustice?
6. Could you describe what kind of detentions or deficiencies your company's vessels have received? Have they been justified?
7. How much have these cost the company in off-hire or loss of reputation?
8. Last two years in Paris MoU area all deficiencies and detentions should have reference code to the regulation. Is this noticed by the shipowners?
9. What would you say is the state or MOU that require most of your attention when it comes to PSC inspections?
10. Have any of your vessel been inspected when inspection windows have been closed? If yes have the PSCO given any reason for why?
11. Have your company's vessels or agents offered bribes to a PSCO to try to change the inspection outcome? If yes, what was the outcome?
12. Are there differences between countries or MOU's when it comes to corruption? If yes, what is the extremes?

## PSCO

13. How do PSCOs usually behave? What different tactics have your fleet experience that PSCO use to try to fulfill their corruption plans? (if any corruption plan)
14. Are there high quality PSCOs ? if yes, where and why are they considered as high quality?

## Appeals

15. Have your company appealed any PSC detentions? If yes what was the outcome? If no, why not?
16. Have you experience instances were the shipowner wants support to appeal but the flag state will not stand up for the shipowner?
17. Have there been instances where the company don't want to appeal to avoid the risk of new, worse, inspections during next port call? What happens if you appeal?
18. What is your opinion on the fact that a shipowner do not always have the right to appeal a deficiency? Even that the deficiency will affect to companies over all performance? (Tokyo MOU)

## Appendix 2

### Tokyo MOU

Australia  
Canada  
Chile  
China  
Fiji  
Hong Kong, China  
Indonesia  
Japan  
Republic of Korea  
Malaysia  
Marshall Islands  
New Zealand  
Papua New Guinea  
Peru  
Philippines  
Russian Federation  
Singapore  
Thailand  
Vanuatu  
Viet Nam

### Paris MOU

Belgium  
Bulgaria  
Canada  
Croatia  
Cyprus  
Denmark  
Estonia  
Finland  
France  
Germany  
Greece  
Iceland  
Ireland  
Italy  
Latvia  
Lithuania  
Malta  
The Netherlands  
Norway  
Poland  
Portugal  
Romania  
Russian Federation  
Slovenia  
Spain  
Sweden  
United Kingdom of Great Britain and  
Northern Ireland

## **Appendix 3**

Extract from Paris and Tokyo MOU concerning weighting systems and white-grey-black list including excess factor.

# Explanatory note – “White”, “Grey” and “Black List”

The normative listing of Flags provides an independent categorization that has been prepared on the basis of Paris MoU port State inspection results over a 3-year period, based on binomial calculus.

The performance of each Flag is calculated using a standard formula for statistical calculations in which certain values have been fixed in accordance with agreed Paris MoU policy. Two limits have been included in the System, the ‘black to grey’ and the ‘Grey to white’ limit, each with its own specific formula:

$$u_{black\_to\_grey} = N \cdot p + 0.5 + z \cdot \sqrt{N \cdot p \cdot (1-p)}$$

$$u_{white\_to\_grey} = N \cdot p - 0.5 - z \cdot \sqrt{N \cdot p \cdot (1-p)}$$

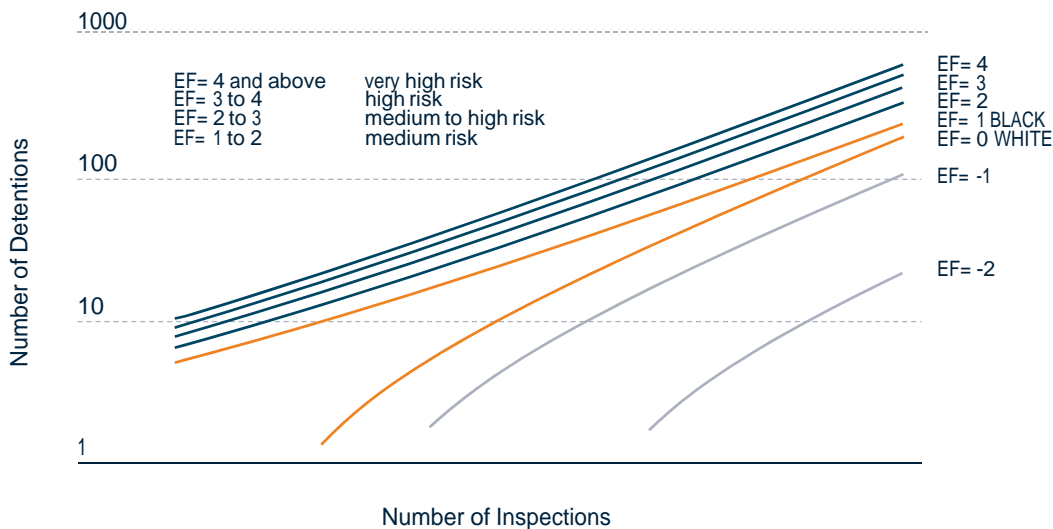
In the formula “N” is the number of inspections, “p” is the allowable detention limit (yardstick), set to 7% by the Paris MoU Port State Control Committee, and “z” is the significance requested (z=1.645 for a statistically acceptable certainty level of 95%). The result “u” is the allowed number of detentions for either the black or white list. The “u” results can be found in the table. A number of detentions

above this ‘black to grey’ limit means significantly worse than average, where a number of detentions below the ‘grey to white’ limit means significantly better than average. When the amount of detentions for a particular Flag is positioned between the two, the Flag will find itself on the grey list. The formula is applicable for sample sizes of 30 or more inspections over a 3-year period.

To sort results on the black or white list, simply alter the target and repeat the calculation. Flags which are still significantly above this second target, are worse than the flags which are not. This process can be repeated to create as many refinements as desired. (Of course the maximum detention rate remains 100%) To make the flags’ performance comparable, the excess factor (EF) is introduced. Each incremental or decremental

step corresponds with one whole EF-point of difference. Thus the EF is an indication for the number of times the yardstick has to be altered and recalculated. Once the excess factor is determined for all flags, the flags can be ordered by EF. The excess factor can be found in the last column of the White, Grey or Black list. The target (yardstick) has been set on 7% and the size of the increment and decrement on 3%. The White/Grey/Black lists have been calculated in accordance with the principles above.

The graphical representation of the system below is showing the direct relations between the number of inspected ships and the number of detentions. Both axes have a logarithmic character as the ‘black to grey’ or the ‘grey to white’ limit.





# Explanatory note – “White”, “Grey” and “Black List”

## Example flag on Black list:

Ships of Flag A were subject to 108 inspections of which 25 resulted in a detention. The “black to grey limit” is 12 detentions. The excess factor is 4.26.

$N$  = total inspections

$P$  = 7%

$Q$  = 3%

$Z$  = 1.645

How to determine the black to grey limit:

$$\mu_{blackto\ grey} = N \cdot p + 0.5 + z \cdot \sqrt{N \cdot p \cdot (1-p)}$$

$$\mu_{blackto\ grey} = 108 \cdot 0.07 + 0.5 + 1.645 \cdot \sqrt{108 \cdot 0.07 \cdot 0.93}$$

$$\mu_{blackto\ grey} = 12$$

The excess factor is 4.26. This means that ‘p’ has to be adjusted in the formula. The black to grey limit has an excess factor of 1. so to determine the new value for ‘p’. ‘q’ has to be multiplied with 3.26 and the outcome has to be added to the normal value for ‘p’:

$$p + 3,26q = 0,07 + (3,26 \cdot 0,03) = 0,1678$$

$$\mu_{excessfactor} = 108 \cdot 0.1678 + 0.5 + 1.645 \cdot \sqrt{108 \cdot 0.1678 \cdot 0.8322}$$

$$\mu_{excessfactor} = 25$$

## Example flag on Grey list:

Ships of Flag B were subject to 141 inspections. of which 10 resulted in a detention. The ‘black to grey limit’ is 15 and the “grey to white limit” is 4. The excess factor is 0.51. How to determine the black to grey limit:

$$\mu_{blackto\ grey} = 141 \cdot 0.07 + 0.5 + 1.645 \cdot \sqrt{141 \cdot 0.07 \cdot 0.93}$$

$$\mu_{blackto\ grey} = 15$$

How to determine the grey to white limit:

$$\mu_{greyto\ white} = N \cdot p - 0.5 - z \cdot \sqrt{N \cdot p \cdot (1-p)}$$

$$\mu_{greyto\ white} = 141 \cdot 0.07 - 0.5 - 1.645 \cdot \sqrt{141 \cdot 0.07 \cdot 0.93}$$

$$\mu_{greyto\ white} = 4$$

To determine the excess factor the following formula is used:  $ef$  = Detentions – grey to white limit / grey to black limit – grey to white limit

$$ef = (10 - 4) / (15 - 4)$$

$$ef = 0,51$$

## Example flag on White list:

Ships of Flag C were subject to 297 inspections of which 11 resulted in detention. The “grey to white limit” is 13 detentions. The excess factor is –0.28. How to determine the grey to white limit:

$$\mu_{greyto\ white} = N \cdot p - 0,5 - z \cdot \sqrt{N \cdot p(1-p)}$$

$$\mu_{greyto\ white} = 297 \cdot 0.07 - 0.5 - 1.645 \cdot \sqrt{297 \cdot 0.07 \cdot 0.93}$$

$$\mu_{greyto\ white} = 13$$

The excess factor is -0.28 This means that ‘p’ has to be adjusted in the formula. The grey to white limit has an excess factor of 0. so to determine the new value for ‘p’. ‘q’ has to be multiplied with –0.28. and the outcome has to be added to the normal value for ‘p’:

$$p + (-0.28q) = 0.07 + (-0.28 \cdot 0.03) = 0.0616$$

$$\mu_{excessfactor} = 297 \cdot 0.0616 - 0.5 - 1.645 \cdot \sqrt{297 \cdot 0.0616 \cdot 0.9384}$$

$$\mu_{excessfactor} = 11$$

# Explanatory note – “Commitment”

**Commitment:**

Member States of the Paris MoU are committed to perform inspections according to the inspection and selection scheme as defined in Annexes 8 and 11 of Paris Memorandum of Understanding. The number of inspections relevant for this commitment is calculated accordingly.

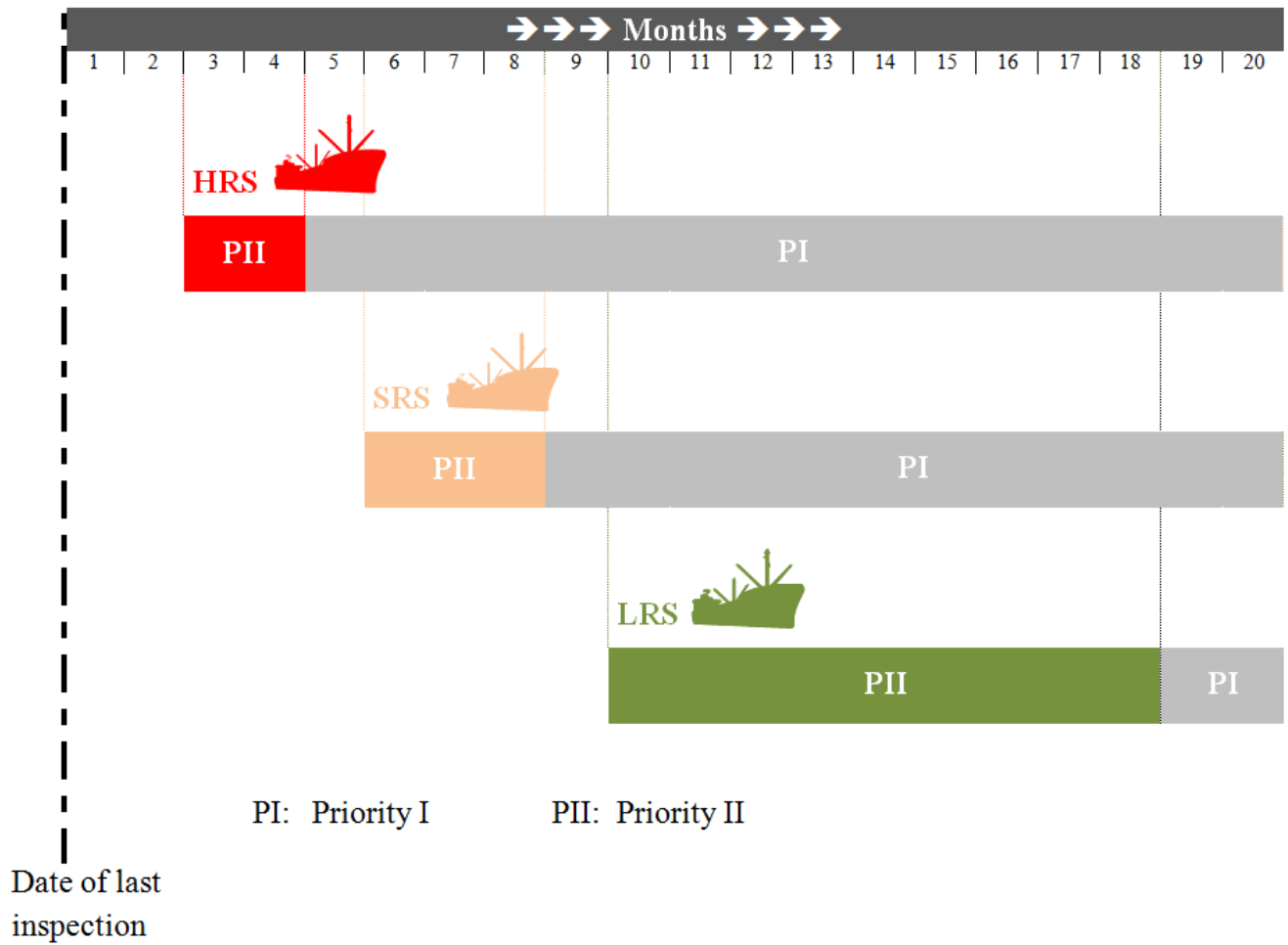
## INFORMATION SHEET OF THE NEW INSPECTION REGIME (NIR)

### 1. SHIP RISK PROFILE

Parameters		Profile			
		High Risk Ship (HRS) (When sum of weighting points $\geq 4$ )		Standard Risk Ship (SRS)	Low Risk Ship (LRS)
		Criteria	Weighting points	Criteria	Criteria
Type of Ship		Chemical tanker, Gas Carrier, Oil tanker, Bulk carrier, Passenger ship, Container ship	2	Neither LRS nor HRS	-
Age of Ship		All types > 12y	1		-
Flag	BGW-list <sup>1)</sup>	Black	1		White
	IMO Audit <sup>2)</sup>	-	-		Yes
Recognized Organization	RO of Tokyo MOU <sup>3)</sup>	-	-		Yes
	Performance <sup>4)</sup>	Low Very Low	1		High
Company performance <sup>5)</sup>		Low Very Low No inspection within previous 36 months	2		High
Deficiencies	Number of deficiencies recorded in each inspection within previous 36 months	How many inspections were there which recorded over 5 deficiencies?	No. of inspections which recorded over 5 deficiencies		All inspections have 5 or less deficiencies (at least one inspection within previous 36 months)
Detentions	Number of Detention within previous 36 months	3 or more detentions	1	No detention	

- 1) The Black, Grey and White list for flag State performance is established annually taking account of the inspection and detention history over the preceding three calendar years and is adopted by the Tokyo MOU Committee as published in the Annual Report.
- 2) The status on completion of IMO audit will be based on updated information obtained by the Tokyo MOU.
- 3) Recognized Organizations of Tokyo MOU are those recognized by at least one member Authority of the Tokyo MOU, a list of which is provided on the web-site.
- 4) The performance of all Recognized Organizations is established annually taking account of the inspection and detention history over the preceding three calendar years and is adopted by the Tokyo MOU Committee as published in the Annual Report.
- 5) Company performance takes account of the detention and deficiency history of all ships in a company's fleet while that company was the ISM company for the ship. Companies are ranked as having a "very low, low, medium or high" performance. (see the last page) The calculation is made daily on the basis of a running 36-month period. There is no lower limit for the number of inspections needed to qualify except a company with no inspections in the last 36 months will be given 2 weighting points.

## 2. SHIP RISK PROFILE INSPECTION WINDOW



Priority I: ships must be inspected because the time window has closed.

Priority II: ships may be inspected because they are within the time window of inspection.

### 3. COMPANY PERFORMANCE

Company performance is determined based on the deficiency index and the detention index.

$$\text{Deficiency ratio} = \frac{\text{No. of ISM deficiencies} * 5 + \text{No. of non-ISM deficiencies} * 1}{\text{No. of inspections}}$$

$$\text{Detention ratio} = \frac{\text{No. of detentions}}{\text{No. of inspections}}$$

<b>Deficiency Index</b>	<b>Deficiency ratio</b>
Above average	> 1 above Tokyo MOU average
Average	Tokyo MOU average +/- 1
Below average	> 1 below Tokyo MOU average

<b>Detention Index</b>	<b>Detention rate</b>
Above average	> 1% above Tokyo MOU average
Average	Tokyo MOU average +/- 1%
Below average	> 1% below Tokyo MOU average

#### Company Performance Matrix

<b>Detention Index</b>	<b>Deficiency Index</b>	<b>Company Performance</b>
Above average	Above average	Very Low
Above average	Average	
Above average	Below average	
Average	Above average	Low
Below average	Above average	
Average	Average	
Average	Below average	Medium
Below average	Average	
Below average	Below average	
Below average	Below average	High

## **Annex 8      Inspection and Selection Scheme**

- 1**      Based on a ship's Risk Profile the Inspection and Selection Scheme determines the scope, frequency and priority of inspections.
- 2**      Periodic Inspections are carried out at intervals determined by the ship risk profile.
- 3**      Overriding or unexpected factors might trigger an inspection in between periodic inspections. This category of inspection is referred to as an Additional Inspection.
- 4**      Ships become due for periodic inspection in the following time windows:  
  
For HRS – between 5-6 months after the last inspection in the Paris MoU region.  
For SRS – between 10-12 months after the last inspection in the Paris MoU region.  
For LRS – between 24-36 months after the last inspection in the Paris MoU region.
- 5**      Periodic Inspections and Additional Inspections count equally. Therefore the time span for the next periodic inspection re-starts after an additional inspection.
- 6**      The selection scheme is divided into two priorities:  
  
Priority I: ships must be inspected because either the time window has closed or there is an overriding factor  
  
Priority II: ships may be inspected because they are within the time window or the port State considers an unexpected factor warrants an inspection
- 7**      If a Priority II periodic inspection is not performed the ship remains Priority II until the time window closes and the ship becomes Priority I.
- 8**      In the case of Unexpected Factors the need to undertake an additional inspection is left to the discretion of the Authority. If such a Priority II inspection is not performed it remains a Priority II ship if and when it arrives in another MoU port unless the Authority judges that any relevant information that it has received does not warrant being passed on.
- 9**      The priority and the level of selection will be shown for each ship in the information system.
- 10**     The category and type of inspection carried out is determined by the matrix in Table 3 below:

Table 3 Selection Scheme

Priority	Level	Category of inspection
<b>I</b> <b>Ship must be inspected</b>	Overriding factor	Additional
	HRS not inspected in last 6 months	Periodic
	SRS not inspected in last 12 months	Periodic
	Ship not inspected in last 36 months	Periodic
<b>II</b> <b>Ship may be inspected</b>	HRS not inspected in last 5 months	Periodic
	Ship with unexpected factors	Additional
	SRS not inspected in last 10 months	Periodic
	LRS not inspected in last 24 months	Periodic

### Overriding and Unexpected Factors

#### Overriding Factors

**11** The overriding factors listed below are considered sufficiently serious to trigger an additional inspection at Priority I:

- Ships reported by another Member State or the secretariat excluding unexpected factors,
- Ships involved in a collision, grounding or stranding on their way to port,
- Ships accused of an alleged violation of the provisions on discharge of harmful substances or effluents,
- Ships which have been manoeuvred in an erratic or unsafe manner whereby routing measures, adopted by the IMO, or safe navigational practices and procedures have not been followed,
- Ships which have been suspended or withdrawn from their Class for safety reasons after last PSC inspection,
- Ships which cannot be identified in the database.

#### Unexpected Factors

**12** Unexpected factors could indicate a serious threat to the safety of the ship and the crew or to the environment but the need to undertake an additional inspection is for the professional judgement of the Authority. These factors include:

- Ships reported by pilots or relevant authorities which may include information from Vessel Traffic Services about ships' navigation,
- Ships which did not comply with the reporting obligations,
- Ships reported with outstanding deficiencies (except those with code 16 (within fourteen days) and code 17 (before departure))
- Previously detained ships (3 months after the detention),
- Ships which have been the subject of a report or complaint by the master, a seafarer, or any person or organization with a legitimate interest in the safe operation of the ship, ship



on-board living and working conditions or the prevention of pollution, unless the Member State concerned deems the report or complaint to be manifestly unfounded,

- Ships operated in a manner to pose a danger,
- Ships reported with problems concerning their cargo, in particular noxious or dangerous cargo,
- Ships where information from a reliable source became known, that their risk parameters differ from the recorded ones and the risk level is thereby increased,
- Ships carrying certificates issued by a formerly Paris MoU recognized organization whose recognition has been withdrawn since the last inspection in the Paris MoU region.

- 13** Ships with unexpected factors which have not been inspected may be reported to the information system and remain eligible for inspection in subsequent ports as Priority II.
- 14** The provisions of the Memorandum apply to a ship covered by a system of mandatory surveys for the safe operation of regular ro-ro ferry and high-speed passenger craft services if the Memorandum applies to the ship. However a survey of a ship which is carried out by an Authority (not being the flag Administration of the ship) in accordance with on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high-speed passenger craft services will be considered as an expanded inspection, or more detailed inspection as relevant. If the ship is not indicated as Priority I in the Information System the survey will be recorded as a Priority II inspection.

**Annex 7 Ship Risk Profile**

- 1** All ships in the information system are assigned either as high, standard or low risk based on generic and historic parameters.
- 2** Table 1 shows the criteria within each parameter for each ship risk profile.
- 3** Each criterion has a weighting which reflects the relative influence of each parameter on the overall risk of the ship.
- 4** High Risk Ships (HRS) are ships which meet criteria to a total value of 5 or more weighting points.
- 5** Low Risk Ships (LRS) are ships which meet all the criteria of the Low Risk Parameters and have had at least one inspection in the previous 36 months.
- 6** Standard Risk Ships (SRS) are ships which are neither HRS nor LRS.
- 7** A ship's risk profile is recalculated daily taking into account changes in the more dynamic parameters such as age, the 36 month history and company performance. Recalculation also occurs after every inspection and when the applicable performance tables for flag and R.O.s are changed.

Table 1: Ship Risk Profile

			Profile				
			High Risk Ship (HRS)		Standard Risk Ship (SRS)	Low Risk Ship (LRS)	
Generic Parameters			Criteria	Weighting points	Criteria	Criteria	
1	Type of ship		Chemical tankship Gas Carrier Oil tankship Bulk carrier Passenger ship	2	neither a high risk nor a low risk ship	All types	
2	Age of ship <sup>1</sup>		all types > 12 y	1		All ages	
3a	Flag	BGW-list <sup>2</sup>	Black - VHR, HR, M to HR	2		White	
			Black – MR	1			
3b		IMO-Audit <sup>3</sup>	-	-		Yes	
4a	Recognized Organization	Performance <sup>4</sup>	H	-		-	High
			M	-		-	-
			L	Low		1	-
			VL	Very Low			-
4b		Organizations recognized by one or more Paris MoU Member States	-	-		Yes	
5	Company	Performance <sup>5</sup>	H	-		-	High
			M	-		-	
			L	Low		2	-
			VL	Very Low	-		
Historic Parameters							
6	Number of def. recorded in each insp. within previous 36 months	Deficiencies	Not eligible	-		≤ 5 (and at least one inspection carried out in previous 36 months)	
7	Number of Detention within previous 36 months	Detentions	≥ 2 detentions	1		No Detention	

<sup>1</sup> according to point 9 of this Annex<sup>2</sup> according to formula in the Annual Report<sup>3</sup> according to point 11 of this Annex<sup>4</sup> according to formula in the Annual Report<sup>5</sup> according to point 15 of this Annex

## Parameters for Ship Risk Profile

Type of Ship

**8** The ship type denomination is as per a list adopted by the Paris MoU Committee.

Age of Ship

**9** The age of the ship is determined by the keel-laying date in dd/mm/yyyy format in the information system. A ship reaches more than 12 years on dd/mm/yyyy+12. If only the year of keel-laying is available in the information system then the ship reaches more than 12 years on 31/12/yyyy+12.

Black, Grey and White list

**10** The Black, Grey and White list for flag State performance is established annually taking account of the inspection and detention history over the preceding three calendar years and is adopted by the Paris MoU Committee.

IMO Audit

**11** To meet the criterion the flag States are invited to send to the Paris MoU Secretariat written confirmation that a final audit report including, where relevant, a corrective action plan has been drawn up in accordance with the “Framework and Procedures for the IMO Member State Audit Scheme” (IMO Resolution A. 1067(28)).<sup>6</sup>

**12** The Paris MoU Secretariat will maintain on the Paris MoU public website an up-to-date list of flag States which meet the flag criteria for a low risk ship.

Recognized Organization Performance

**13** The performance of all Recognized Organizations is established annually taking account of the inspection and detention history over the preceding three calendar years and is adopted by the Paris MoU Committee.

**14** To qualify for the criterion recognized by the Paris MoU the organization must be recognized by one or more Paris MoU Member States. The list of recognized organizations is included in a PSCC Instruction.

Company Performance

**15** Company performance takes account of the detention and deficiency history of all ships in a company’s fleet while that company was the ISM company for the ship. Companies are ranked as having a “very low”, “low”, “medium” or “high” performance. The calculation is made daily on the basis of a running 36-month period. There is no lower limit for the number of inspections needed to qualify except a company with no inspections in the last 36 months will be given a “medium performance”.

**16** The formula consists of two elements, the deficiency index and the detention index.

Deficiency Index

**17** When counting deficiencies each ISM related deficiency is weighted at 5 points. Other deficiencies are valued at 1 point.

**18** The Deficiency Index is the ratio of the total points of all deficiencies of all ships in a company’s fleet to the number of inspections of all ships in the company’s fleet within the last 36 months.

---

<sup>6</sup> Flag States that previously have send written confirmation that a final audit report had been drawn up in accordance with the “Framework and Procedures for the Voluntary IMO Member State Audit Scheme” (IMO Resolution A.974(24)) will continue to meet the flag criteria for a low risk ships.

- 19** This ratio is compared with the average for all ships inspected in the Paris MoU over the last 3 calendar years to determine whether the index is average, above average or below average as follows:

deficiency index	deficiency points per inspection
above average	> 2 above PMoU average
average	PMoU average $\pm$ 2
below average	> 2 below PMoU average

#### Detention Index

- 20** The Detention Index is the ratio of the number of detentions all ships in a company's fleet to the number of inspections of all the ships in the company's fleet within the last 36 months.
- 21** This ratio is compared with the average for all ships inspected in the Paris MoU over the last 3 calendar years to determine whether the index is average, above average or below average as follows.

detention index	detention rate
above average	> 2 above PMoU average
average	PMoU average $\pm$ 2%
below average	> 2 below PMoU average

- 22** If a Refusal of Access Order (banning) is issued within the last 36 months to any ship in the fleet the Detention Index of the company is automatically "above average" irrespective of all other inspection results.

#### Company Performance Matrix

- 23** Using the matrix in Table 2 below the combination of deficiency and detention indices determines the performance level.

Table 2: Company Performance Matrix

Detention Index	Deficiency Index	Company Performance
above average	above average	very low
above average	average	low
above average	below average	
average	above average	
below average	above average	
average	average	medium
average	below average	
below average	average	
below average	below average	high