



Impact Assessment: Norwegian Salary and Working Condition Requirements for Cruise Ships

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Executive Summary

The government has proposed a new act that requires ships sailing in Norwegian waters to follow Norwegian salary and working condition requirements. The proposed act will affect cruise lines with ships registered in the NIS-register or other foreign registries, while lines with ships in the NOR-register will not be affected, as they already follow these requirements.

We have been asked by one of the cruise lines affected by this regulation – Carnival Corporation & Plc. – to assess the potential impacts on the competitive situation between domestic and foreign operators in the cruise industry, as well as the impacts on Norwegian seafarers employed in the sector.

Annually above 100 cruise ships operate in Norwegian waters, of which approximately 85 percent is registered in the NIS-register or foreign registries, and approximately 15 percent is registered in the NOR-register. In total, there are close to 2800 work-years in the Norwegian cruise sector. Of these, 500 are subject to Norwegian salary and working condition requirements, while close to 2300 are subject to foreign salary and working condition requirements.

As they are in the hospitality sector, cruise ships differ from other ships - e.g., freight and offshore ships - in that they have a significantly larger staff. We find cruise lines with ships in the NIS- or foreign registries will experience payroll increases of up to 500 percent following the proposed regulation. In total, the cruise lines will then experience salary increases of up to 870 million Norwegian Kroner.

Some affected cruise lines will likely continue to operate in Norwegian waters – albeit with higher prices and/or lower profits – while others are likely to leave for other waters. This will improve competitive situation for cruise lines with ships in the NOR-register, already subject to Norwegian salary and working condition requirements while receiving additional wage compensation through a tax refund scheme. If the regulation is imposed, there is a risk that cruise lines with no access to compensating measures – i.e., those with ships in NIS or foreign registries – will be at a competitive disadvantage compared to lines with NOR-registered ships.

As they already follow Norwegian salary and working condition requirements, the proposed regulation will have no effect on employees that work for cruise lines with ships in the NOR-register. Since most Norwegian seafarers work in ships in the NOR-register, the proposed regulation will – by extension – have limited direct effect on the salary and working conditions for Norwegian seafarers. As there appears to be difficulties in finding qualified Norwegian seafarers, it is also unlikely that it will lead to an immediate increase in the number of Norwegian seafarers.

The proposed regulation may also affect the employees that work for cruise lines with ships in the NIS-register or other foreign registries. They will likely receive a higher salary and working conditions when working in Norwegian waters. Whether their overall situation improves or not, will nevertheless depend on the wage setting power of the cruise lines. If their employer cruise lines hold a relative degree of wage setting power, they will be able to erode their employees' improved salary and working conditions in Norwegian waters in other ways, for example, by reducing wages while in foreign waters.

1. Introduction

The Norwegian government has proposed a new act that require ship lines to pay Norwegian salaries to their employees while in Norwegian waters¹. This report will assess the impact of the proposed regulation on cruise lines operating in Norwegian waters.

1.1 Background

The cruise ship industry is an important part of the Norwegian tourism industry, with approximately 850 000 cruise tourists visiting Norway each summer, on approximately 100 different cruise ships. There is significant variation in the number and choice of ports the cruise ships visit, but estimates suggest that approximately 3 600 000 unique tourists visit Norwegian ports each summer by cruise (Innovasjon Norge, 2019).

Table 1: The Cruise Sector in Norwegian Waters during the Summer (2019)

Statistic	
Cruise ships	100
Tourist visits	850 000
Cruise arrivals in ports	2 000
Unique tourist visits in different ports	3 600 000

Sources: Innovasjon Norge (2019)..

At present, there are three types of cruise ships with activities in Norwegian waters; ships registered in the NOR-register (the original Norwegian ship register), ships registered in the NIS-register (a secondary Norwegian ship register subject to fewer restrictions available only for selected activities), and ships registered in foreign registries. As a general rule, vessels in the NOR-register have to pay higher wages and abide by stricter working condition requirements than those in other registries. .

The Norwegian government has implemented various measures to counteract this additional cost burden faced by NOR-register ships. The most important of these is the net tax scheme, by which companies receive a deduction on their tax obligations provided they comply with Norwegian wage and employment

¹ Throughout this report, we will use the term “Norwegian waters” to refer to Norwegian waters and territorial seas, as specified in the proposed act § 3e.

² See Chapter 2 for a more detailed explanation of the already existing measures.

regulations. Other measures include the requirement for cruise lines that deliver tenders to the government in procurement processes for maritime services to comply with Norwegian salaries and working conditions.²

1.2 The proposed regulations

Despite these already existing measures, the Norwegian government has proposed new regulation requiring cruise ships from any register sailing in Norwegian waters to follow the same salary and working condition requirements as those currently imposed on ships from NOR-register.³ The proposed regulation will apply to cruise ships sailing between two (or more) Norwegian ports; cruise ships operating exclusively out one Norwegian port; and cruise ships engaged in international travel, provided that more than half of the trip’s total sailing time is spent in Norwegian waters. The proposed regulation will therefore affect cruise lines with ships in the NIS-register or foreign registries.

1.3 Scope of this report

We have been asked to assess the potential impacts of the proposed regulation by one of the cruise lines affected by it – Carnival Corporation & Plc. Specifically, they have asked us to conduct an economic analysis providing insight into the following questions:

- 1) What is the expected impact of the proposed regulation on the degree and fairness of competition between domestic and foreign operators in the cruise industry?
- 2) What is the burden that the implementation of the proposed regulation would impose on foreign cruise lines currently operating in Norwegian waters?
- 3) What is the expected impact of the proposed regulation on the number of jobs and the working conditions of Norwegian seafarers employed in the cruise industry?
- 4) Which alternative measures are available to protect Norwegian seafarers employed in the cruise industry more effectively besides the proposed regulation?

³ See Chapter 2.4 for a more detailed explanation the proposed regulation.

We address the stated questions in our analysis below. Two previous reports have already considered the potential effects of introducing similar regulations (Wikborg Rein and Oslo Economics, 2019; Menon Economics, 2019). These reports have a broader scope, however, and consider the effects on ships in a wide range of areas such as freight, offshore, drilling and cruise ships. In this report, we build on these previous findings and focus more deeply on the impact on cruise lines and the Norwegian seafarers employed by this sector. This is particularly relevant because cruise ships, which are part of the hospitality sector, have a much larger staff than the other ships; so will also be more affected by the proposed regulation.

1.4 Method

The analysis that follows is based on the methodological guidelines for socio-economic impact assessment by the Norwegian Agency for Public and Financial Management (2018). We attempt to quantify the economic impacts resulting from the proposed regulation on the main actors affected by it, to provide answer to the four key questions we were asked to address.

Some of estimates in this report are uncertain due to two main reasons. First, the lack of accurate data forces us to make assumptions on the current market structure.⁴ While we aimed to make conservative and reasonable assumptions, these should only be considered as approximations to the true nature of the maritime sector in Norway. Secondly, we cannot perfectly predict how cruise lines will respond to the proposed regulation. We have based most of our estimates on the current state of the cruise ship sector assuming small, if any, changes. When possible, we have also indicated how we expected market actors to react to the proposed regulation and the implications of this.

1.4.1 Data sources

We draw on data from multiple sources to carry out the estimations that form the basis of our impact assessment. Whenever possible we use the most recent data available to us, as is standard practice. Due to the pandemic, however, we have reason to believe that data for 2020/2021 is not representative of a normal situation in Norwegian waters. We chose instead to use data from 2018 and 2019 to get a more realistic picture of cruise traffic in Norway.

Table 2: Overview of data sources

Data	Year(s)	Source
Cruise arrivals and departures in Norwegian ports	2018 and 2019	Kystdatahuset
Ships in the NOR and NIS-register	2018	Wikborg Rein and Oslo Economics (2019)
Employees in ships in Norwegian waters	2018	Wikborg Rein and Oslo Economics (2019)
Number of work-years affected by the proposed regulation	2018	Menon Economics (2019)
Norwegian tariff for seafarers	2022	NHO Sjøfart (2022)
Minimum wage for seafarers on ships in foreign registries	2021	International Transport Workers' Federation (2021)
Exchange rates	2022	Norges Bank (2022)

⁴ See the section 5 Appendix for more on this limitation.

2. Current Situation and the proposed regulation

Each year, more than 100 cruise ships operate in Norwegian waters, of which approximately 85 percent are registered in the NIS-register or foreign registries, while the rest are registered in the NOR-register. It has been claimed that ships in the NOR-register are at competitive disadvantage compared to ships from other registries, as NOR ships are required to comply with Norwegian labour regulation. Against this backdrop, the government has proposed a new regulation imposing the same salary requirements on all cruise ship operators working in Norwegian waters.

2.1 Cruise line activities in Norwegian waters

The cruise ship industry is an important part of the Norwegian tourism industry, with approximately 850 000 cruise tourists visiting Norway each summer (Innovasjon Norge, 2019). There are above 100 cruise ships that operate in Norwegian waters each year, of which approximately 85 percent is registered in the NIS-register or foreign registries, and approximately 15 percent is registered in the NOR-register (Kystverket, 2022).

In total, there are close to 2 800 work-years in the Norwegian cruise sector, made up of both Norwegian and foreign seafarers. Of these, approximately 500 are subject to Norwegian salary and working condition requirements, while close to 2300 are subject to foreign salary and working condition requirements (Menon Economics, 2019). Data from the NOR and NIS-registries suggest that around 40 percent of their staff is maritime personnel, with the remainder being hospitality personnel (Wikborg Rein and Oslo Economics, 2019).

2.2 Different regulations depending on register

Perhaps the most important feature of the cruise ship sector in Norwegian waters is that ships may be subject to different regulations depending on their

register. NOR-register ships are currently required to comply with Norwegian labour regulation while ships from the NIS or foreign registries are not.

It is therefore claimed that ships in the NOR-register are at a competitive disadvantage compared to cruise ships registered in foreign registries (Partssammensatt maritimt utvalg, 2021). Note that the stricter working conditions requirements they must abide by not only increase wage costs but can also lead to higher costs on their own. Worktime limits, for example, can lead to a higher number of employees on ships in the NOR-register compared to those in foreign registries, which implies further higher staff costs. These higher costs, it is argued, are not offset by the tax deductions currently in place for ships in the NOR-register.⁵⁶

Several factors mediate how severely the Norwegian salary and working condition requirements placed on NOR-register ships may affect their competitive situation. We will now consider each of these factors in turn.

Labour intensity in the market for cruise ships

The effect of the salary and working conditions requirements depends on how labour intensive the market for cruise shipping is; the adverse competitive effect of the requirements will be larger the more labour intensive an industry is, and vice versa. As they are also in the hospitality sector, cruise ships differ from other ships – e.g., freight and offshore ships – in that they have a significantly larger staff. They are thus relatively labor intensive.

Separate cruise markets in Norwegian waters

The current salary and working conditions requirements' effect on the competition between Norwegian ships and ships in foreign registries will also depend on the markets the cruise ships operate in.

If the cruise ships in the NOR-register and those in foreign registries operated in separate markets, then the difference in salary and working conditions requirements would have a rather limited effect on the competitive situation. This would for example be the case if there are structural reasons that affect who can serve the different markets, e.g., if it is much easier for ships in the NOR-register to market to Norwegians and ships in foreign registries to market to foreigners. It is not possible to directly measure how separate

reduce staffing, which would depreciate the cruise experience for the costumers.

⁶ Note that the proposed law will not require vessels registered outside NOR to comply with the stricter working condition requirements; it only relates to salary.

⁵ It is important to note that an increase in labour costs may make cruise lines less competitive in different ways. One intuitive way would be that cruise lines need to charge higher ticket prices to cover their costs. A less intuitive way would be that cruise lines with higher labour costs choose to

these markets are. We can however gain some insight into the competitive situation in Norwegian waters by looking at travel data.

For this, we first need to consider the customers that travel on cruise ships in Norwegian waters. At a conceptual level, it is possible to differentiate between customers that merely do inland travel, and those that also visits foreign ports as a part of their trip. One natural hypothesis would be that ships in the NOR-register cater to inland travel tourists, while ships in foreign registries cater to tourists with an arrival and/or departure destination abroad.

Using the years 2018 and 2019 as reference, we find that ships in the NOR-register were used in 32 percent of all inland cruise trips, while ships in the NIS-register and foreign registries accounted for the remaining 68 percent. For cruise trips that visits one or more destination abroad on their voyage, we find that Norwegian cruise ships and ships from foreign registries conducted 6 percent and 94 percent of the trips, respectively.⁷

This suggests that cruise ships in the NOR-register and other registries to an extent operate in the same markets; in particular, the ships from the NOR-register compete with ships in other registries in the inland market. Thus, it is likely that the salary and working condition requirements they face will put them at a competitive disadvantage in the inland market.

2.3 Tax refund scheme

In the preceding section, we explained why the current salary and working condition requirements Norwegian cruise ships puts them at a competitive disadvantage to cruise ships in foreign registries. There are nevertheless factors that add nuance to this picture. The most important of these is the tax refund scheme for ships operating in Norwegian waters.

The tax refund scheme is a measure that exists to compensate employees for the higher costs involved in hiring seafarers with Norwegian salaries and working condition requirements. It works through giving cruise lines a tax deduction equal to a part (or the entire) sum they pay in prepaid employee tax, social security tax (trygdeavgift) and the employer tax (arbeidsgiveravgift), for each employee per year. To qualify for the tax refund scheme, cruise lines need to register their ships in the NOR or NIS-register, and have, for example, a certain amount of training positions onboard.⁸

It is unclear whether the tax refund scheme fully compensates cruise ships in the NOR-register for the stricter salary and working condition requirements they must comply with. Part of the problem is that while both ships in the NOR- and NIS-registers can benefit from the scheme; only NOR-register ships must follow Norwegian labour standards. Still, the scheme benefits ships in the NOR-register to a larger extent than ships in the NIS-registry, and certainly more than ships in foreign registries. Earlier investigations into the issue, show that the tax refund scheme alleviates some – but not all – of the unfair competition between cruise lines in Norwegian waters (Wikborg Rein and Oslo Economics, 2019).

In addition to the tax refund scheme, public procurement of transport services along the coast may also affect the competitive balance in the sector.⁹ To partake in these competitive tenders, cruise lines must fulfil multiple service standards criteria, related to frequency of departure and arrivals, the capacity of ships, etc. Most importantly for the case at hand, competing cruise lines are required to pay Norwegian salaries and comply with Norwegian working conditions.

From a theoretical point of view, this could contribute to fairer competition by giving cruise ships in foreign registries an incentive to implement the same salary and working conditions as those required of NOR-registry ships, in order to partake in the procurement process. Participating cruise lines nevertheless need ships with non-standard features that allow them to visit all the harbours specified in the tender. Our assessment is that few cruise lines with ships in foreign registries own these kinds of ships. Thus, they are not able to deliver a tender for governmental procurement. Taking this into account, we think that the government's requirement in the public procurement processes have negligible impact on the competitive situation between cruise ships in Norwegian waters.

2.4 The Proposed Regulations

The government has proposed a regulation to secure the salary and working conditions for employees working at ships in Norwegian waters. In brief, the proposal says that ships sailing in Norwegian waters are subject to Norwegian salary levels. In the consultation note for the regulation, the government states that the salary level requirements will be specified in regulations, with the tariff agreements as a reference (Regjeringen, 2022).

⁷ See the subsection "Separate cruise markets for ships in the NOR-register and foreign registries" in the section "Appendix" for a detailed explanation of the estimation.

⁸ For a full specification of all the criteria, see Regulation on Subsidy to Employment of Seafarers (Lovdata, 2016).

⁹ For a full description of the procurement process, see Oslo Economics (2016).

The stated aim of the proposal is twofold. On the one hand, the proposed regulation aims to secure a fair and just working life for employees working in Norwegian waters. Moreover, the proposed regulation also aims to reduce low-wage-competition, and thereby contribute to promote fair competition. The latter aim is also important to secure continued recruitment and employment of Norwegian seafarers in the maritime sector (ibid.).

The proposed regulation will apply to most ships with employees in Norwegian waters, barring some in international travel and some government vessels. Relevant for the purposes of this report, the proposed regulation will apply to cruise ships sailing between two (or more) Norwegian ports, or cruise ships operating exclusively out of one Norwegian port. In addition, the proposed regulation will apply to all cruise ships coming from or going to a foreign port, provided that the cruise ship spends more than half of the total sailing time in Norwegian waters. Thus, the proposed regulation will apply to a smaller extent to cruise ships in international travel (ibid.).

At present, there are three types of cruise ships with activities in Norwegian waters; ships registered in the NOR-register, ships registered in the NIS-register, and ships registered in foreign registries. Of these, ships registered in the NOR-register are already subject to Norwegian salary and working condition requirements. The proposed regulation will therefore affect cruise lines with ships in the NIS-register or foreign registries.

3. Expected effects of the proposed regulations

If the government implements the proposed legislation, it will affect multiple actors in the maritime sector, in particular the cruise lines and the seafarers working for them. We now consider the effects on each of these groups in turn.

The effect on cruise lines with ships in foreign registries

If the government implements the proposed legislation, cruise lines with ships registered in foreign registries will experience an increase in costs, as they will likely have to pay higher wages to their employees, during the time they spend in Norwegian waters. Assuming that the cruise lines with ships in foreign registries make no changes following the proposed regulation, we estimate that they will experience a cost increase up until 870 million Norwegian Kroner per year due to increased salary payments.¹⁰ This estimate is close to the estimate made by Menon Economics in an earlier report about similar regulations (854 million Norwegian Kroner) (Menon Economics, 2019).

It is however reasonable to assume that the cruise lines with ships in foreign registries will respond in separate ways to the cost increase, depending on their situation. Some cruise ships may continue to operate in Norwegian waters – albeit with a lower or no profit margin– while others are likely to move their activity to different waters. It is also likely that a fraction of cruise ships in foreign registries will change their routes to avoid the salary and working condition requirements implied by the legislation. At present, most of the cruise ships in foreign registries visit more than one harbour on their trips in Norwegian waters (Table 3). If the government implements the regulation, it is reasonable to assume that some of them will change their routes, so that they only visit one harbour and/or spend less time in Norwegian waters, thereby bypassing conditions that subject them to the salary and working condition requirements. Another possible response to the cost increase would be that the cruise lines reduce their fleet.

Table 3: Average number of port visits per cruise ships per month in 2018 and 2019

Number of port visits	NIS or foreign	NOR
1 or 2 ports	6 %	14 %
3-5 ports	22 %	36 %
6-10 ports	31 %	26 %
Over 10 ports	41 %	23 %

Source: Oslo Economics based on Kystdatahuset.

Changing routes also comes at a cost for the cruise lines.¹¹ When they go through with it, the costs incurred from changing routes is likely to be lower than the expected cost increase from following the salary and working condition requirements, however.

The effect on cruise lines with ships in the NOR-register

Cruise lines with ships in the NOR-register will benefit from the proposed regulation given that they will now operate in a market in which labour costs are comparable for all actors. Two additional mechanisms may also work in their favour. First, it is likely that some cruise lines with ships in foreign registries will move their ships to foreign waters following the regulation; opening up new potential markets for cruise lines in the NOR-register. Second, it is likely that some cruise lines with ships in foreign registries will change their routes to save costs, which also will open new potential markets for ships in the NOR-register.

It is important to note that transfer of cruise passengers from cruise ships in foreign registries to ships in the NOR-register will not be one-to-one. For one thing, the cruise lines with ships in NOR-register may face ships and personnel constraints, so they may not have the immediate capacity to do so. Moreover, some of these routes may become unprofitable under the stricter salary and working condition requirements that ships in the NOR-register face. The increased costs will lead to increased prices, and thus a reduced demand of cruise trips along the Norwegian coast.

The effect on the competitive situation between cruise ships in the NOR-register and foreign registries

As evident from the two preceding sections, the competitive situation for cruise ships in Norwegian

¹⁰ See the subsection “The cost increase for foreign cruise lines” in the section “Appendix” for a detailed explanation of the estimation.

¹¹ Note that the extra costs from changing routes need not be visible; it could make the trips with ships in foreign cruise registries less attractive for costumers, resulting in foregone revenue, for example.

waters will change if the regulation is implemented. It will improve for cruise lines with ships in the NOR-register, and it will worsen for cruise lines with ships in foreign registries. Even though cruise lines with ships in the NOR-register have a competitive disadvantage at the present, it is by no means obvious that the competitive situation post-regulation will be fair.

Measures have already been put to place to address the fact that only NOR-register ships are currently required to comply with Norwegian salary and working requirements – most importantly the tax refund scheme. These alleviating measures disproportionately benefit cruise ships in the NOR-register. There is a risk that after the proposed new regulation is introduced, cruise lines with ships in the NOR-register will continue to disproportionately benefit from these remedying measures, while no longer being at a competitively disadvantage. This will put cruise lines with ships in foreign registries at a competitive disadvantage instead, compared to cruise lines with ships in the NOR-register. If the government also changes other alleviating measures following the proposed regulation – most importantly the tax refund scheme – this may not be the case.

The effect on seafarers working for cruise lines with ships in foreign registries

The proposed regulation has the potential to improve the salary and working conditions of some seafarers working in cruise ships registered in foreign registries, in particular those seafarers for which these currently fall short of the requirements implied by the proposed regulation. The magnitude of the improvement for these employees will depend on the difference between the present salary and working conditions they have, and the salary and working conditions implied by the regulation. This will vary from cruise line to cruise line, and cruise ship to cruise ship.

However, when an employer holds some degree of wage setting flexibility,¹² economic literature shows that these positive benefits may be partially or fully eroded (Manning, 2005). Employers may be able to partly counteract the improvement in salary and working conditions employees get from the regulatory interventions, resulting in small or no improvements for their employees. In the cruise industry, two types of counteractive measures may be prominent. First, cruise lines with partial wage setting flexibility will try to reduce other employee benefits in Norwegian waters not specified by the salary and working condition requirements implied by the regulation. In the cruise industry, this would typically be non-quantifiable benefits, for example the price and quality of the

accommodation the workers have on the ships. Second, cruise lines with partial wage setting flexibility may reduce the salary and working conditions while in foreign waters to compensate for the improved ones in Norwegian waters. An intuitive example would be that cruise ships that both travel in Norwegian and foreign waters reduce their salary payments in foreign waters to compensate for the increased salaries in Norwegian waters. The extent to which cruise lines with ships in foreign registries will succeed with these counteractive measures will - as mentioned – depend on their wage setting power. An intuitive example of factor limits the wage-setting flexibility of a cruise lines, would be laws that prohibit ships to reduce the salary of seafarers below some specified minimum wage.

The proposed regulation might also affect the number of people employed in cruise lines with ships in foreign registries. As explained above, there is a risk that the foreign lines will reduce their activities in Norwegian following the regulation, leading to a reduction in the number of people employed in their ships. This reduction may be partially offset by increased activities – and thus increased number of employees – for ships in the NOR-register, but not completely.

The effect on seafarers working for cruise lines with ships in the NOR-register

Seafarers employed by cruise ships in the NOR-register already enjoy the salary and working conditions implied by the proposed regulation. We therefore think it is unlikely that the proposed regulation will have direct effect on these employees. As explained above, the proposed regulation may nevertheless improve the competitive situation of cruise ships in the NOR-register. If they are going to expand their operations to take advantage of their improved situation, they will – among other things – need qualified personnel. It is therefore likely that the demand for seafarers with the skills and competence needed to work on cruise ships in the NOR-register will increase following the regulation. Thus, there will most likely be an increase in the number of employees on ships in the NOR-register following the regulation. As mentioned above, this increase will not completely make up for the reduction in the number of people employed on the ships in foreign registries. Also note that the new employees on the ships in the NOR-registries may not be Norwegians, as elaborated on below.

The effect on the employment and education of Norwegian seafarers

The previous sections consider the effect of the proposed regulation on seafarers that work in ships in

¹² With the term “wage-setting flexibility”, we refer to an employer’s capacity to adjust the compensation to employees upward or downward.

the NOR and foreign registries. A significant majority of Norwegian seafarers work for cruise lines with ships in the NOR-register; and they will experience few effects of the proposed regulation. Norwegian seafarers working in cruise ships in foreign registries will – however – be positively affected by the proposed regulation, partly depending on the wage setting flexibility of the cruise lines with ships in foreign registries.

As explained, it is likely that there will be an increased demand for seafarers on ships in the NOR-register because of the proposed regulation. Given that Norwegian seafarers make up most of the personnel in these ships, this would result in an increase in the demand for Norwegian seafarers. However, earlier reports have raised concerns about the challenges in finding qualified Norwegian seafarers to cover current needs, let alone increased demand (Mogstad & Rogstad, 2013). It is thus difficult to see how the proposed regulation will lead to an increased number of Norwegian seafarers.

Second-order effects

The proposed regulation will have effects that go beyond the groups mentioned above. For one thing, the proposed regulation may reduce cruise ship traffic to certain ports, as some cruise lines reduce their number of visits and others change the amount of time spent on the Norwegian coast. This would have ramifications for the tourism industry and could lead to lead to fewer employees in the sector. On the other hand, the changes may also affect the environment in the ports' surroundings for the better. It is – as already mentioned – beyond the scope of this report to elaborate on such second-order effects.

Alternative measure: Changes in the tax refund scheme

An alternative measure to achieve the aims stated in the consultation note would be to make changes in the current tax refund in scheme. Given the aims under consideration, one option would be to improve the benefits that cruise lines receive under the tax refund scheme, and increase the cruise lines' deductions in employee tax, social security tax and the employer tax. We do not suggest making any changes in the criteria for receiving the benefits under the tax refund scheme.

To make the outlined changes will – in practice – be a subsidy to cruise ships at a competitively disadvantaged state, and therefore contribute to make competition fairer. Under one type of market conditions¹³, it can also be more effective than the

proposed regulation. To see this, remember that the effectiveness of proposed regulation will depend on the wage setting power of the cruise lines. In the case that the cruise lines have significant wage setting power, the proposed regulation will be inefficient, and vice versa. Thus, if the cruise lines have significant wage setting power, the effect of the proposed regulation will have limited effect on competitive fairness in the market for cruise shipping. In that case, it would be more effective to give a direct subsidy to the cruise ships in a disadvantaged position (i.e., NOR-register ships), which one would do through changes in the tax refund scheme.

The outlined changes in the tax refund scheme will also improve the situation for seafarers working in Norwegian waters. However, different seafarers will benefit from changes in tax refund scheme compared to the proposed regulation. If the tax refund scheme is changed along the lines outlined above, this would mostly benefit employees working on cruise ships in the NOR-register; the proposed regulation will on the other hand mainly benefit seafarers that work for cruise ships in foreign registries. This also means that these changes in the tax refund scheme will benefit Norwegian seafarers while the proposed regulation analysed in this report will mainly benefit foreign seafarers. It is a political question – beyond the scope of this paper – to establish which of these groups should be assigned most weight.

It thus seems that to make changes in the tax refund scheme may also achieve the aims in the consultation note, albeit with different effects for separate groups. To make these changes will also have other costs, most importantly for the government in terms of foregone revenue.

empirical question – beyond the scope of this report – to establish whether the cruise lines do in fact have this power.

¹³ I.e., that the cruise lines with activities in Norwegian waters have significant wage setting power. It is an

4. Conclusion

The government has proposed new regulation that requires ships sailing in Norwegian waters to follow Norwegian salary and working condition requirements. The proposed regulation will mainly affect cruise lines with ships registered in the NIS or other foreign registries

We have been asked to assess the potential impacts of the proposed regulation by one of the cruise lines affected by it – Carnival Corporation & Plc. Specifically, they have asked us to assess the potential impacts on the competitive situation between domestic and foreign operators in the cruise industry, the burden imposed on foreign cruise lines, the impacts on Norwegian seafarers employed by the sector, and explore alternative regulations that would achieve similar results more effectively.

Building on previous reports on the sector and on multiple data sources, we conducted the requested analysis and present a summary of our key findings below.

The proposed regulation will imply a significant financial burden on foreign cruise ship lines operating in Norwegian waters. Cruise lines with ships in the NIS- or foreign registries will experience an increase in salaries of up to 870 million Norwegian Kroner as a result of the regulation and are likely to face additional costs from the change in working condition requirements. Some affected cruise lines will likely continue to operate in Norwegian waters – albeit with higher prices and/or lower profits – while others are likely to leave for other waters.

There is a risk that foreign cruise lines end up in a competitive disadvantage. The proposed regulation will improve the competitive situation of domestic cruise lines (i.e., those with ships in the NOR-register), since they are already subject to Norwegian salary and working condition requirements, while foreign cruise lines are not. However, domestic cruise lines currently receive compensation for their higher wage costs through the tax refund scheme. If the proposed regulation is enacted, there is a risk that cruise lines with no access to these compensating measures – i.e., those with ships in NIS or foreign registries – will be at a competitive disadvantage compared to lines with NOR-registered ships.

The number of Norwegian seafarers working in the cruise industry and their wage and working conditions are unlikely to change. As they already follow Norwegian salary and working condition requirements, the proposed regulation will have no effect on employees that work for cruise lines with

ships in the NOR-register. Since most Norwegian seafarers work in ships in the NOR-register, the proposed regulation will – by extension – have very limited direct effect on the salary and working conditions for Norwegian seafarers. As there appear to be difficulties in finding qualified Norwegian seafarers, it is also unlikely that it will lead to an increase in the number of Norwegian seafarers, at least in the short term.

Alternative measures, such as changes to the current tax refund scheme, may be more effective. Given the Government's stated aims for the current proposal, an alternative would be to improve the benefits that cruise lines receive under the tax refund scheme and increase the cruise lines' deductions in order to fully offset their higher wage costs vis a vis foreign cruise lines. This would – in practice – act as a more direct subsidy to cruise ships at a competitively disadvantages state, and therefore contribute to make competition fairer.

The proposed regulation may also affect other actors in the cruise line industry. Employees of cruise lines with ships in the NIS-register or other foreign registries, for example, may or may not experience improvements in their salary and working conditions. Customers, particularly those using foreign cruise line services, will likely experience higher prices. And these higher prices may have a negative impact on receptive tourism levels along the Norwegian coast. However, these effects are relatively uncertain and fall beyond the scope of this report.

5. Appendix

Some of the estimates that we provide in this report are not straightforward to make; they require us make multiple assumptions about the data we have available, the market for cruise ships and working and salary conditions for seafarers. For the sake of transparency and completeness, we here provide detailed explanations of the estimation procedures.

Separate cruise markets for ships in the NOR-register and foreign registries

When we consider the current salary and working condition requirements on the competitive situation, we want to know whether the cruise ships in NOR-register and foreign registries operate in separate markets. If they do, the effect of the different salary and working conditions requirements on the competitive situation will be rather limited, and vice versa. Unfortunately, we cannot directly measure how separate these markets are. As we argue in the report, we can nevertheless estimate a proxy that indicates something about the separateness of the markets; the fraction of cruise ships in the NOR-register and foreign registries that mainly do inland trips, and the fraction of ships in the registries that mainly do trips with arrival and/or departure destination abroad.

We combine two datasets for our estimation. One of them contains information about the travels that cruise ships have done between harbours in 2018 and 2019; each travel between two ports for one cruise at a point in time is one observation.¹⁴ The second dataset contains information about which ships are registered in the NOR and NIS-registers in 2018.¹⁵ By combining the two datasets, we obtain detailed information regarding the travel routes each cruise ship made, and the register each of the cruise ships belongs to.¹⁶

Having combined the datasets, we establish whether the cruise ships do inland trips or also do foreign trips. To do so, we define inland trips as itineraries in which a given cruise ship only visits inland harbours within a given month. We define foreign trips as itineraries in

which a cruise ship visits at least one foreign harbour within a given month. We thereafter let the cruise ships that only visit inland harbours in a month be a part of the inland market in that period and let cruise ships that also visits foreign harbours be a part of the foreign market. In the end, we find the number of ships in the NOR and NIS-register in the respective markets. We present these numbers in the section “Separate cruise markets in Norwegian waters “ in the report above.

The cost increase for foreign cruise lines

Our estimate of the cost increase consists of two main parts; we first find the average number of employees cruise ships have in different capacities (e.g. officers, engineers, seamen), and then we combine this with data about the salary differences for ships in the NOR-register and foreign registries, to find the expected cost increase following the regulation. We elaborate on both parts of the estimation exercise in turn.

The first thing we want is to find out is the average number of employees cruise ships have in different capacities. To do so, we use a data set that contains information about the employees in cruise ships; for every cruise ship in the NOR and NIS-register in 2018, the data contains information about how many employees they have in specific work capacities.¹⁷ By averaging all the cruise ships, we obtain an estimate for the average number of employees by role in cruise ships.¹⁸

Having found the average number of employees in each capacity in the cruise lines, we move on to establishing the salary difference for employees working at cruise ships registered in the NOR-register and those working in cruise ships in foreign registries. As a reference for salary levels, we use the existing tariffs for the Norwegian salary level,¹⁹ and the ILO’s minimum wage standard for seafarers for the foreign cruise lines’ salary levels. The difference between the two, we take to be the expected salary increase cruise ships in foreign registries will experience following the proposed regulation.²⁰ A crucial assumption in this

NOR or NIS-register. This may not be realistic, but given the data we have available, we nevertheless think this is the only feasible way forward. We also note – after running some robustness checks – that the final estimate is insensitive to small changes in the fraction of employees in different capacities.

¹⁹ NHO Sjøfart (2022)

²⁰ There is not a one-to-one match between the roles in the Norwegian tariff and those in the ILO’s minimum wage standard. We have therefore used our best judgement to match specific roles.

¹⁴ We extract the data from Kystdatahuset’s statistic “Havneinformasjon: Cruiseankomster” filtered for the years 2018 and 2019.

¹⁵ Data based on Wikborg Rein and Oslo Economics (2019).

¹⁶ When combining the data sets, we assume that cruise ships that neither find in the NOR nor NIS-register is registered in foreign registries.

¹⁷ Data based on Wikborg Rein and Oslo Economics (2019).

¹⁸ An implicit assumption in our calculations is that cruise ships in foreign registries have similar numbers of employees in different capacities – on average – as cruise ships in the

estimation exercise is that employees in the cruise lines earn a wage equivalent to that specified in the tariffs and minimum wage standards. We do not think this is the case. Evidence suggests that many of the employees in cruise ships earn more than the minimum wage. If that is so, the cruise ships in foreign registries will have lower salary increase than assumed, which would bias our cost estimate upwards. Taking this into account, we therefore think it is most reasonable to think of this estimate as an upper bound on salary increase following the regulation.

The two parts above gives us the expected cost increase for a particular cruise ship in foreign registries. To scale our findings – to all cruise ships in foreign registries operating in Norwegian water – we use numbers from the Menon Economics' earlier report about similar legislation, which contains about how many work-years that will be affected by the proposed regulation (2019). We present these numbers in the section “The effect on cruise lines with ships in foreign registries” in the report.

We would also like to emphasise that an implicit assumption in the cost estimate outlined above is that some cruise lines experience a cost increase, and everything else remains constant. As the impact assessment has indicated, this is not likely to be the case. Cruise lines will respond in multiple ways when facing this cost increase. If they have some wage setting power, they might change salary and working conditions in foreign waters, and they might also make changes in their routes and where they operate. All these factors will affect the actual cost increase that the cruise lines will in fact face.

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