D7.2: Social benefits of marine restoration activities: Evidence from a contingent valuation of the Dohrn Canyon in the Bay of Naples

Marine Ecosystem Restoration in Changing European Seas MERCES

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DISSEMINATION LEVEL

PU	Public	
CO	CO Confidential, only for members of the consortium (including the Commission Services) (Public versions involving this work are in preparation; one is forthcoming in Marine Policy journal and reduced version as a Whitaker Institute Policy Brief and the second is being prepared for submission to journal/industry article)	**x**

CONTENTS

1. Introduction

This paper estimates the value to the Italian general public of the restoration of the Dohrn canyon system in the Bay of Naples. The Dohrn canyon is a submarine crossing the Gulf of Naples (see Figure 1). It us up to 1000 meters deep in places and follows two main branches, the eastern one and the western one, merging in a single branch in a NE-SW direction. The Dohrn Canyon is located close to the Gulf of Naples which is one of the most densely populated Italian regions. Over many decades this canyon has been subjected to coastal zone pressures. This has resulted in the change of the pristine environmental conditions of the canyon and the presence of litter along the canyon axis and walls.

Figure 1: Location of the Dohrn Canyon in the Central Mediterranean Sea.

The anthropogenic (human related) activities influence the biodiversity of benthic fauna associated to the canyon system Jobstvogt et al. (2014) identify 11 distinct ecosystem services with welfare implications arising from abundant biodiversity in submarine canyons as displayed in table 1. However, as discussed by Armstrong et al. (2012) and Hanley et al. (2015), there are a number of challenges associated with the valuation of deep-sea resources that restrict the application of many standard approaches toward the valuation of non-market goods. From an ecological perspective the link between ecosystem functioning of deep-sea resources and the services they support are not fully established (Armstrong, 2012). Modelling the likely effect of a change in the attributes of a given ecosystem and its subsequent effect on an economic resources such as for example fish stocks is particularly complex.

Respective of these challenges the current study employs a stated preference approach to estimation of the value to the Italian general public of the restoration of the Dohrn canyon. Stated preference approaches to non-market valuation involve asking individuals directly their willingness to pay for environmental goods.

Table 1: Ecosystem services from submarine canyons as an example of deep-sea ecosystems

Ecosystem services:	**Explanation of the potential benefits derived**
Provisioning services:	
Carbon sequestration and storage	The value of uptake, storage and burial of organic material within the canyon.
Food provision	The canyon's value of providing marine organisms for human consumption.
Genetic resources and chemical compounds	The option value of using canyon organisms in biotechnological, pharmaceutical, or industrial applications.
Regulating services:	
Waste absorption and detoxification	The value of burial, decomposition and transformation of waste within the canyon ecosystem.
Cultural services:	
Aesthetic and spiritual	The value of the canyon ecosystem for inspiring religion, arts, movies, documentaries, books and folklore.
Bequest and existence	The value of maintaining the canyon ecosystem for future generations and the intrinsic value of its marine species.
Scientific and educational	The cognitive value of the canyon ecosystem for science and education.
Supporting services:	
Biologically mediated habitat	The value of canyon habitats formed by marine organisms.
Nutrient cycling	The value of storage and recycling of nutrients by canyon organisms.
Resilience and resistance	The value of the amount of disturbance that the canyon ecosystem can cope with and its ability to regenerate after disturbance.
Water circulation and exchange	The value of currents, such as up-and down-welling, dense shelf water cascading and mixing of water masses.

Source: adapted from Jobstvogt et al. (2014a)

2. Existing stated preference studies that examine valuation of deep-sea marine ecosystems and marine restoration activity

Stated preference approaches to valuation of specific deep sea ecosystems have been applied in a limited number of studies to date. Glenn et al., (2010) found a willingness to pay of between €0-10 for cold water coral protection in Ireland. Jobstvogt et al. (2014b) examined preferences for the creation of new Marine Protected Areas in deep sea locations in Scottish waters via a discrete choice experiment carried out in Scotland. The authors returned a willingness to pay estimate (WTP) of between £70 pounds and £77 per year for a high degree of species protection and high potential for the development of medicinal products

from deep sea organisms. Aanesen et al. (2015) ran a discrete choice experiment to value the protection of cold water coral in Norway. The authors in that study found a much higher valuation for protection of cold water reefs with a WTP value of between €235 and €287 per annum per household amongst Norwegian households.

In addition there have been a number of papers which have looked at how individuals form preferences for deep-sea resources given that they are relatively obscure and typically have non-use values for individuals. Sandorf et al. (2016) examined the role of information provision on the outcome of choice experiments to value cold water coral in Norway. Elsewhere, Sandorf et al. (2017) further examined the role of knowledge of marine ecosystems attributes on attribute non-attendance in discrete choice studies using the same dataset as Aanesen et al. (2015). The authors found significant attribute non-attendance, i.e. some respondents did not consider all attributes in choosing alternatives. Finally, Aanesen and Armstrong, (2019) found that for offshore resources respondents valued protection of ecosystem services for the purpose of protecting fish species and were indifferent if this came at the expense of market activity such as fisheries and oil and gas.

While there has been work on the valuation of deep sea ecosystem service benefits, the current MERCES study, to best of the authors' knowledge, is the first study that examines the benefits generated from the actual restoration of a deep sea canyon ecosystem. Of particular interest is Tonin (2018), a study that employs a contingent valuation approach to estimating WTP for the restoration of a coralligenous habitat off the coast of Venice. The scope of the study is very similar in that the author is estimating the WTP amongst the Italian population for restoration of a marine habitat off the coast of a major metropolitan area. In addition while not a deep-sea habitat the ecosystem in question is remote with little or no direct use value beyond fishery activity (Tonin 2018).

The remainder of the study is structured as follows: Section 3 details the method employed, survey used, resulting data set and econometric approach toward estimating WTP. Section 4 reports the results of the econometric analysis while Section 5 contains a discussion of the implications of the results for policy and future research. Finally Section 6 concludes.

3. Methods and Data Description

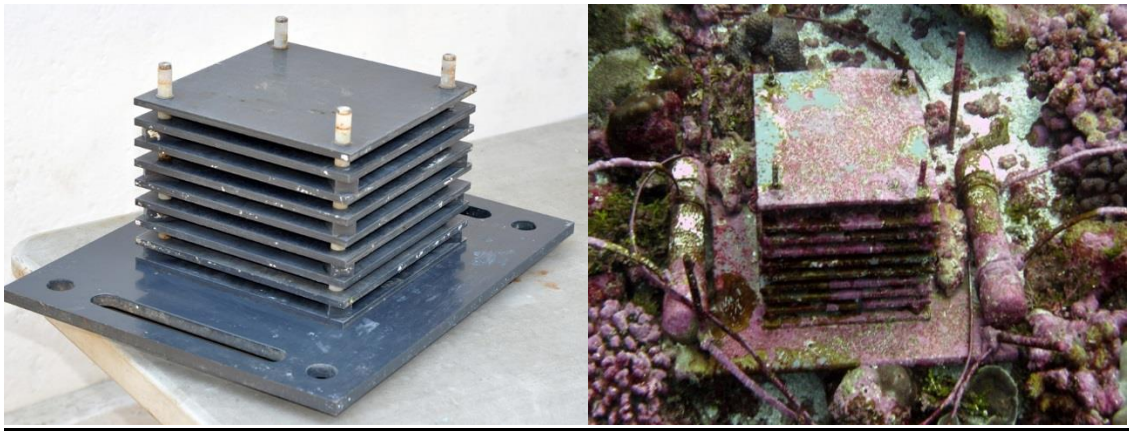
To estimate the marginal value to society of the restoration of the Dohrn canyon the contingent valuation method (CVM) was adopted. CVM is a stated preference technique that uses a survey instrument to directly elicit information on individual's preferences and willingness to pay (WTP) for an environmental good or service. It is frequently used in contexts whereby a market for the good in question does not exist and there is lack of market price by which to value the good. CVM overcomes this by creating a valuation task that

attempts to replicate market conditions. The objective of the CVM exercise in this case is to derive an estimate of the marginal willingness to pay of a representative individual of the Italian population for the restoration of the Dohrn canyon. This involves firstly collecting data on the individuals WTP through an appropriate survey of a sample of the population. This data is then used to derive an estimate of the distribution of WTP for the population from which a measure of the marginal WTP for society is derived. The remainder of this section describes the specific application of this process in the current study.

3.1. Survey design and administration.

Collection of data to conduct a CVM analysis involves presenting individuals with a scenario involving a change in the quantity of the non-market good in question and the elicitation of the individual's willingness to pay for the associated change. In any CVM analysis it is vital that the respondents are given clear information in terms of what the contingent scenario is that they are being asked to pay a price premium for. In this study, respondents were presented with information about the canyon and the ecosystems services derived from it. They were also explained to them how the restoration work would be carried out using the images in figure 2.

Figure 2: Autonomous Reef Monitoring Structure Unit before and 2 years after deployment in shallow waters



The respondents were then told:

"We would now like to ask you what, if anything, you might be willing to pay to support a restoration project in the canyon. We would like to mention that some people say they are willing to pay more in surveys for these types of improvements in ecosystems than that they actually would pay if the situation

were real. This is because when people actually have to part with their money, they take into account that there are other things they may want to spend their money on".

Respondents were then reminded to carefully consider their budget; to imagine themselves actually paying the amounts specified each year, for the next 10 years; to keep in mind the impacts on them and their family of restoring deep sea ecosystems and finally that the payment would take the form of an increase to annual personal income tax rates or VAT and would be 'ring-fenced' into a secure marine restoration fund.

Bearing in mind the importance or unimportance of the protection and health of deep sea ecosystems in Italian waters to you personally; would you be prepared to pay €X per year [one of a possible six values (€4, 8, 10, 15, 20, 30) was asked of each respondent] for the next 10 years to ensure that a restoration and monitoring plan are implemented in the Dohrn Canyon that achieves the ecosystem attribute levels shown in table 2.

Table 2. Scenario Attributes

Management Plan Attribute	**Attribute level achieved**
Biodiversity (abundance of animals such as fish, starfish, corals, worms, lobsters, sponges & anemones).	**High** – back to pristine habitat levels for the canyon
Density of Marine litter on canyon floor	**Good** (only 0 to 1 item of litter per km^2)
Size of protected area in canyon	20,000m^2 (3 soccer pitches)

The closed-end discrete choice format of WTP elicitation, as outlined above, was recommended by Arrow et al. (1993) (NOAA expert panel on CVM). The advantage of this approach is that it is less complex for individuals to respond to accurately and mimics market conditions where individuals are typically faced with a take it or leave it purchase (Carson, 2012). Based on the above single-bound dichotomous choice question format, and following Hynes et al. (2019), the WTP function for individual *i* can be written as:

$$\ln(WTP_i) = x_i\beta + \varepsilon_i$$

where *x* is the vector of explanatory variables, β is the vector of parameters to be estimated, and ε is the error term. In this case

$WTP_i \geq bid_i$ if the offered bid amount for the restoration and monitoring plan is accepted
$WTP_i \leq bid_i$ if the offered bid amount for the a restoration and monitoring plan is not accepted
Denoting $y_i = 1$ if bid_i is accepted and $y_i = 0$ if bid_i is not accepted then the probability of $y_i = 1$ is a function of the explanatory variables *x* and can be written as:

$Pr(y_i = 1|x_i) = \Pr(x_i\beta + \varepsilon_i > \ln(bid_i))$ or
$Pr(y_i = 1|x_i) = \Pr(\varepsilon_i > \ln(bid_i) - x_i\beta)$

The standard probit model was employed to estimate the above specification where it is assumed that the error term ε_i has a normal distribution $N(0, \sigma^2)$. Therefore:

$$Pr(y_i = 1|x_i) = \Phi(\frac{x_i\beta}{\sigma} - \frac{\ln(bid_i)}{\sigma})$$

where $\Phi(.)$ denotes the standard cumulative normal distribution function. The probit model is estimated with x_i and bid_i as explanatory variables, and the estimates of β/σ, the vector of coefficient estimates associated to each of the explanatory variables are obtained ($\widehat{(\beta/\sigma)}$ and $-1/\hat{\sigma}$ the coefficient estimate on $ln(bid_i)$).

3.2. Data description

In total 1,060 responses were returned from the online survey. Descriptive statistics for the sample are presented in table 2. Examining the main socio-economic variables the average age is 41, personal income is €25,629, and 63% of the sample are in employment. Examining the distribution of the sample in Italy it can be seen that the sample is spatially representative. North West Italy is most represented at 26% (actual 27%, figures obtained from istat.it representative of 2018) followed by Southern Italy 24% (actual 23%), North East Italy 19% (actual 20%), Central Italy (actual 19%) and the Islands at 12% (actual 11%). In addition Campania is the sub-region where the Dohrn Canyon is situated, with 10% of the sample coming from that region.

We also report a number of variables related to respondent's use of the sea and preferences for environmental protection. *Frequent Visitor to Seaside* and *Frequent water user* are dummy variables that indicate whether the individual visits the seaside or participates in water activities at least once every three months within a year. As seen in Sandorf et al. (2017) knowledge of the resource can affect the value attributed to the marine resource. To account for this we report two variables that indicate the respondent's awareness of the marine ecosystems; awareness of marine protected areas and awareness of the Dohrn Canyon. In total, 78% of respondents had heard of Marine Protected Areas however only 16% had heard of the Dohrn Canyon. Finally 11% of the sample are or have a family member who is a member of an environmental organisation.

Table 3 Data Description

Variable	Mean	Std. Dev.
Age	40.55	11.86
Female	0.51	0.5
Income	€25,629	€16,245
Employed	0.46	0.5
Student		
Obtained third-level education	0.36	0.48
Single	0.32	0.47
Region		
Central Italy	0.19	0.39
Islands	0.12	0.32
North-eastern Italy	0.19	0.39
North-western Italy	0.26	0.44
Southern Italy	0.24	0.43
Inland	0.24	0.44
Campania	0.1	0.30
Use and awareness of coastal resources		
Frequent Visitor to Seaside	.64	0.48
Frequent Water User	0.48	0.5
Awareness of Marine Protected Areas	0.78	0.41
Awareness of Dohrn Canyon	0.16	0.37
Member of Environmental Organisation	0.11	0.31

Examining the response to the question of whether the respondent would agree to pay for restoration at the given bid value 58% of the sample answered yes. Furthermore, as displayed in table 4, as the bid value increases the response rate follows a declining pattern. Issues also arose regarding the prevalence of protest responses amongst those who responded that they were not willing to pay. Protest responses occur when the individual objects to payment for the non-market good at any bid value but may not necessarily derive zero utility from the provision of the good. Such responses are likely to occur due to a number of reasons including adverse reaction to the interview in general (in particular the payment vehicle used) or a conviction that the government should pay for the good using existing resources (Strazzera et al., 2003). In protest situations information regarding WTP is viewed as missing.

Table 4 Responses to WTP question

bid value	€4	€8	€10	€15	€20	€30	Total
% responded yes	59%	63%	65%	53%	56%	49%	58%

In the current study we followed the standard approach of asking those respondents who indicated zero-willingness to pay for the non-market good follow-on questions to ascertain whether they were valid zero bidders or protesters. The questions used and responses are presented in table 5. Here it is assumed that those responders who voted for the reason that *"The Government/Council/other body should pay out of its current budget"* or *"I object to paying taxes"* represent protest voters. Such responders represented 47% of no responders and 19.8% of total responders. This percentage is slightly above the average number of protest voters within stated choice valuation studies of 17.69% identified by Meyerhoff and Liebe, (2010) via a meta-analysis, and well below the maximum of 59.28%.

Similar issues were encountered in Tonin (2018) who found had an equivalent rate of protest responders in the authors study of willingness to pay for marine restoration of Italy's Adriatic coast. In that study the authors measured willingness to pay by including and excluding protest votes and presenting the resulting range of estimates. In this study however we attempt to model the effect of protest votes through the use of a sample selection model. The specific econometric approach adopted in this study is presented in the next section.

Table 5 Protest Responses

Category of Negative Responders	Number of Responders	Percentage of Negative Responders	Percentage of overall sample	Responder type
The Government/Council/other body should pay out of its current budget	182	42%	18%	Protest
I object to paying taxes	20	5%	2%	Protest
I cannot afford to pay	164	38%	16%	True Negative
The ecological restorations are not important to me	4	1%	0.4%	True Negative
I don't believe the restorations will actually take place	35	8%	3%	True Negative
I don't use the marine environment	10	2%	1%	True Negative
Other	17	4%	2%	True Negative
Total Number of Negative Responses	432			

3.3. Econometric approach

We estimate WTP using three models. The first two models are estimated using standard probit regression techniques presented previously. The third model is a sample selection probit model and is an adaptation of Van de Ven and Van Praag (1981)'s sample selection model for binary outcome variables and closely follows Petrolia et al. (2010).

The chosen specification is the same for each WTP model, where WTP is assumed to be a function of *Age, Female, Income, Student, Employed, Obtained third-level education, Single, Inland, Campania, Awareness of Marine Protected Areas, Frequent Water User and Member of Environmental Organisation.* Covariates included in the sample selection portion of the sample selection probit model include the socio-economic variables *Age, Female, Income, Student, Obtained third-level education* and the locational variables *Central Italy, Islands, North-eastern Italy, North-western Italy.*

4. Results

The results of the two standard probit models including and excluding protest are presented in table 6. The bid variable is negative and significant across both models indicating that as the price of restoration rises willingness to pay decreases, conforming to what would be expected from an economic perspective. The bid coefficient however, is significant at the 99% level in the model including protest votes relative to 95% for the model excluding protest votes. The variable indicating the individual's use of the marine environment *frequent water-user* has positive and significant effects across both models. This indicates that those who frequently use the seaside are more likely to place a higher value on the restoration of a marine resource. Likewise being a member of an environmental organisation and being aware of Marine Protected Areas has a positive and significant effect across both models.

Being from Campania, the region where the Dohrn canyon is situated, has a positive effect and significant effect across both models. Being form an inland region has a significant but negative effect, indicating that those in coastal regions are more likely to support marine restoration. Examining the effect of the socio-economic variables the income coefficient is significant and positive across both models indicating a positive income effect. Likewise being employed has a positive and significant effect across both models. All other socio-economic variables are insignificant across both models.

Table 6: Probit model results

	Probit (protest views included)	**Probit (protest views excluded)**
Bid value (€)	-0.016*** (0.005)	-0.014** (0.006)
Age	-0.0001216 (0.004)	0.003 (0.005)
Female	0.104 (0.086)	0.048 (0.102)
Income	0.009*** (0.003)	0.009*** (0.003)
Student	0.242 (0.181)	0.115 (0.201)

Employed	0.211** (0.1)	0.294** (0.117)
Obtained third-level education	0.073 (0.091)	0.077 (0.111)
Single	-0.028 (0.102)	-0.022 (0.12)
Inland	-0.177* (0.096)	-0.199* (0.113)
Campania	0.362** (0.148)	0.521*** (0.192)
Awareness of Marine Protected Areas	0.333*** (0.101)	0.253** (0.122)
Frequent Water User	0.33*** (0.088)	0.432*** (0.109)
Member of Environmental Organisation	0.473*** (0.142)	0.419** (0.174)
Constant	-0.491 (0.253)	-0.24 (0.299)
Log Likelihood	*-637.7*	*-438*
AIC	*1303.4*	*904.1*
BIC	*1372.3*	*969.9*

The results of the sample selection probit model are reported in table 7. Here it can be seen that the estimated coefficients for the WTP model are largely consistent with the previous two models in terms of the elicitation model. The variable coefficients of the selection model, indicate the effect of those variables on the likelihood of the respondent choosing to participate (i.e. not protest). Here it can be seen that having a higher income and being a student have a positive and significant effect on the likelihood of participation. Interestingly as indicated by the significant and negative coefficients those respondents that originated from the islands and central regions of Italy are more likely to protest than those from southern Italy (which represents the base case in this instance).

The correlation coefficient ρ in the model indicates whether the selection and election models are independent. As shown in table 7, ρ appears to be non-negible with a magnitude of 0.929. To formally test for the significance of ρ, we complete a likelihood-ratio test by comparing the likelihood of the full sample selection model versus the sum of the log likelihoods for the elicitation and selection parts of the model. We reject the null hypothesis that ρ is not significantly different from zero at the 95% confidence level. Comparing the AIC and BIC scores relative to the standard estimated standard probit models indicates that the sample selection model is the best fitting model.

Table 7: Sample Selection Model Results

WTP model	
Bid value (€)	-0.011** (0.004)
Age	-0.0002 (0.004252)
Female	0.108 (0.086)
Income	0.01*** (0.003)
Student	0.249 (0.176)
Employed	0.214** (0.089)

Obtained third-level education	0.068 (0.093)
Single	-0.041 (0.087)
Inland	-0.171* (0.093)
Campania	0.422** (0.148)
Awareness of Marine Protected Areas	0.182** (0.097)
Frequent Water User	0.309*** (0.088)
Member of Environmental Organisation	0.267** (0.136)
Constant	-0.43* (0.245)
Selection model	
Age	-0.004 (0.004)
Female	0.144 (0.092)
Income	0.006** (0.003)
Student	0.359* (0.207)
Obtained third-level education	0.074 (0.099)
Central Italy	-0.225* (0.125)
Islands	-0.299** (0.142)
North-eastern Italy	0.018 (0.128)
North-western Italy	-0.164 (0.123)
Constant	0.833*** (0.23)
Log likelihood	-932.5
ρ	0.928583
Prob > chi2 = 0.0436	

The estimated marginal WTP from each model are reported in table 8. The model which excludes protest votes has a high mean WTP relative to the other two models. This result is expected given the positive sign and significance of the measure of correlation in the sample selection model. Further treating all protest votes as true-zero-bidders is likely to bias down WTP. Therefore it is expected that the estimate of mean WTP from the model which includes all protest votes will likely underestimate the mean WTP.

Examining the relative difference in estimated WTP across the models, it can be seen that the model that excludes protest responses has a much higher WTP relative to the preferred sample selection model and the model with the protest responses included. Again, the sign and magnitude of ρ in the sample selection model would suggest this. Specifically a positive correlation coefficient indicates that those likely to participate are also relatively likely to support the bid, relative to those who don't participate in a protest vote.

5. Discussion and Conclusions

The objective of this paper was to estimate the value of the restoration of the Dohrn Canyon in the Bay of Naples. Using a contingent valuation approach a marginal willingness to pay per household of €34.69 was estimated based on the preferred model. Comparing the results of the present study with Tonin (2018) (the

authors gave a range of per person estimates for restoration of the ecosystem from €16.75 to €64.02 with a preferred estimate of €27.03) it is argued two results have particular implications for both policy and further research. Firstly the estimated WTP for restoration of the Coralligenous habitats in the Northern Adriatic are broadly similar to the derived estimates for WTP for the restoration the Dohrn Canyon with a similar range of estimates. This result is interesting as it suggests that Italian households have a similar value for restoration of two distinct types of ecosystems in different locations.

Armstrong et al. (2012) argues that a prior lack of knowledge of a resource does not preclude the existence of a value as individuals can hold latent values for resources that are information dependent. Jobstvogt et al. (2014) and Aanesen et al. (2015) argue the same point in their respective valuation studies. It is argued that the relative similarity of results from this study and Tonin (2018) indicates that, amongst the Italian population, a stable preference for marine ecosystem restoration exists despite both marine resources being relatively unknown to the general population. The similarity of the WTP estimates from both studies has potential implications for benefit transfer between similar projects in Italy and may facilitate more straightforward comparison of benefits values between alternative marine restoration projects at a policy level.

The second result concerns the implication of the effects of alternative treatment of protest voters. In both studies simply dropping protest voters completely, leads to what appears to be a significant overestimation of WTP, at €64.02 in Tonon (2018) and €58.03 in the current study. However, the way protest voters are treated in the preferred models are significantly different. In the current study, a statistical approach was taken whereby we tried to impute the potential preferences of protest voters using a sample selection model. In Tonin (2018) voters who answer negatively to a follow on question regarding willingness to pay at a lower bid amount were excluded. It is argued however that it is unclear how this approach is effective in controlling for the effect of protest voters. Voters who answer negatively to a follow-on question are indicating that they will not pay at any price. This may indicate that they are protest voters, i.e. have a WTP greater than zero but answer negatively because they object to the exercise. It may also indicate that the voters have a WTP equal to zero, i.e. they are indifferent to the provision of the good[1]. Even if all such responders were true protesters excluding them would still pose an econometric problem if the proportion of such respondents was still significant and they weren't missing at random as was the case in the present study.

[1] The presence of a significant number of individuals who genuinely have zero wtp for a given good, poses a different econometric problem in that the tails of the distribution of willingness to pay will "spike" at zero. This is a well-established problem that has resulted with a number of different methods to deal with this issue. For a review see Haab and Mcconnell.

Regardless of the approach taken to dealing with them, protest voters posed a significant problem in both studies. Rather than rely on statistical approaches as done in this study it is preferable to limit the number of protest responders through good research design. One such approach, as was attempted here, is to tailor the payment vehicle used so as to minimise the number of protest voters returned (Meyerhoff and Liebe, 2010). Meyerhoff and Liebe (2010) did a meta-analysis of past CVM studies to examine the effect of design components on the rate of protesting. The authors found that the payment vehicle can have a significant effect on the rate of protest voters returned. In the current study we use an increase in tax while Tonin (2018) uses a form of donation with both studies resulting in a similar rate of protest votes. Examining the reasons given for protests in both studies is also informative. In both studies the majority of responders stated they protested due to a belief that the government should pay for restoration using its existing resources, at 90% in the current study and 82% in Tonin (2018)[2]. This would indicate that the payment vehicle was not the motivating factor determining protest votes. Thus, it is likely that protesting will be an issue in future contingent valuation studies for remote marine resources regardless of the elicitation format.

Finally the models used to derive WTP estimates are informative as to the distribution of WTP across the population. The significant and positive effect of *Frequent Water User*, *Awareness of Marine Protected Areas*, and *Member of Environmental Organisation* would indicate that as expected, use and awareness of the marine environment are a predictor of a positive preference for the restoration of marine restoration. The significance of the *Campania* and *Inland* variables is likely indicative of the distance decay effect, whereby preferences for a spatially defined resource are likely to decay with increasing distance from that resource (Bateman et al., 2006). Lastly there is evidence that there is heterogeneity across the population with regard to preferences for marine ecosystem restoration. It is important to account for these preferences when considering aggregation of preferences to calculate total marginal societal willingness to pay.

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[2] In the current study in answering debriefing questions 90% of protest respondents answered that they protested due to a belief that "The Government/Council/other body should pay out of its current budget". In Tonin 80% of protesters stated that they protested for the following reason, *"I support this initiative but using the taxes that I already pay"*.

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