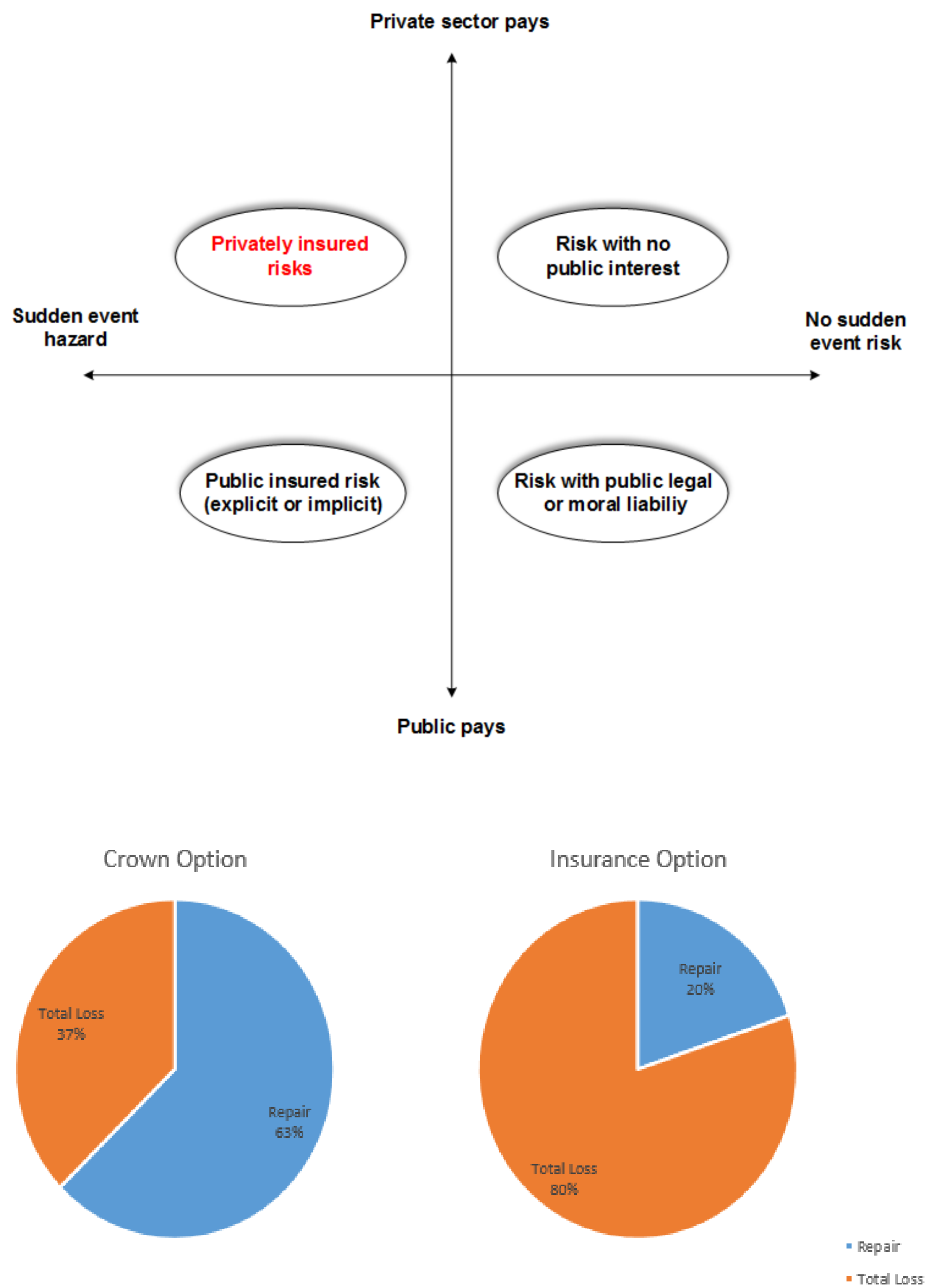


Who Pays for a Managed Retreat?

Lessons from the Christchurch Residential Red Zone

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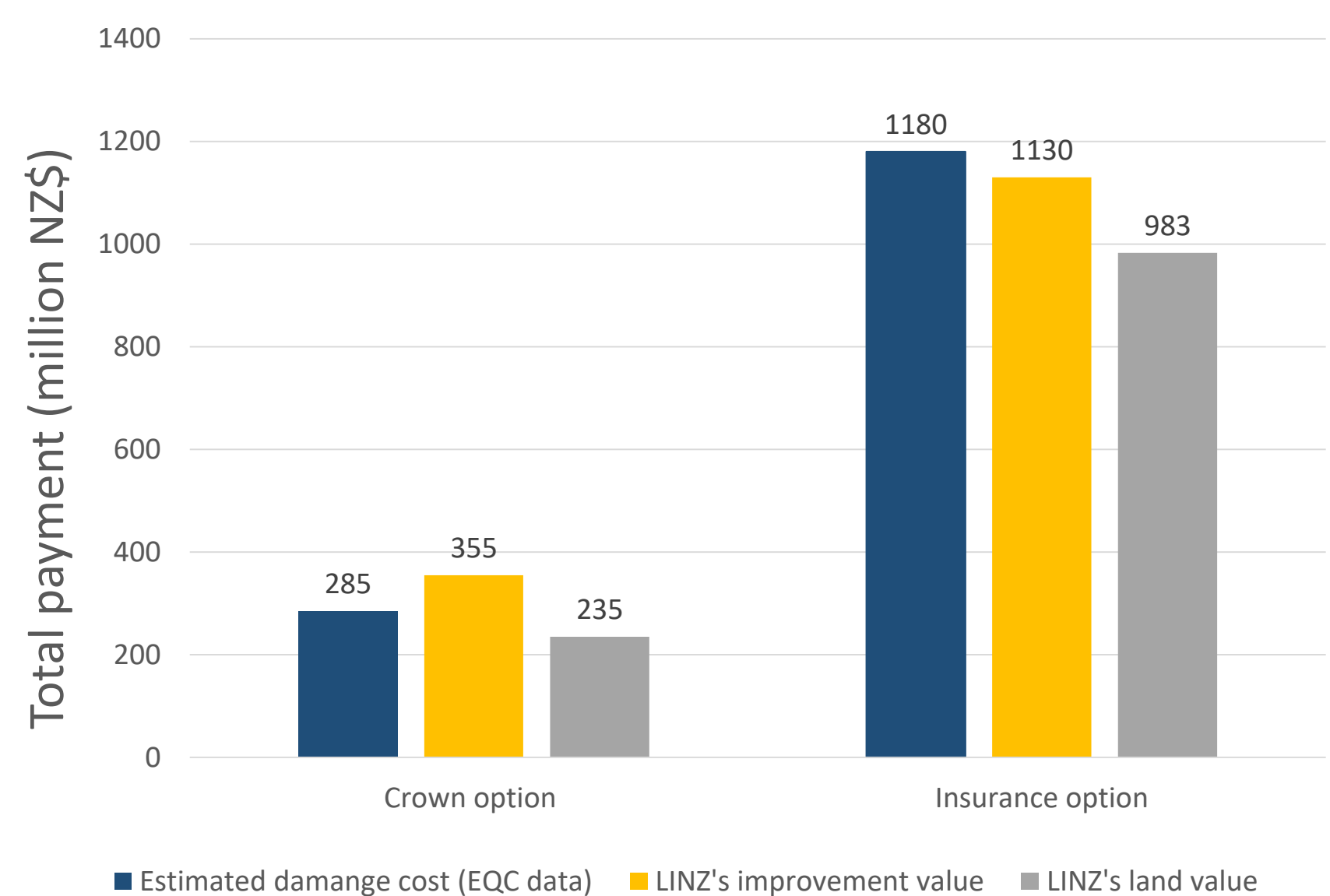


Crown Option:

Owners sell their property to the Crown (including both land and improvements) based on the 2007 rating valuation. The Crown takes over any outstanding insurance claim.

Insurance Option:

Owners sell only their land to the Government at the 2007 rating valuation of the land. Owners pursue any insurance claim they may have against their insurer for damage to the dwelling.



Homeowner choice regarding Crown offer

$$\Pr(\text{Option}_i = 1 | x_i) = F(\beta_0 + \beta_1 \text{property value}_i + \beta_2 \text{earthquake damage}_i)$$

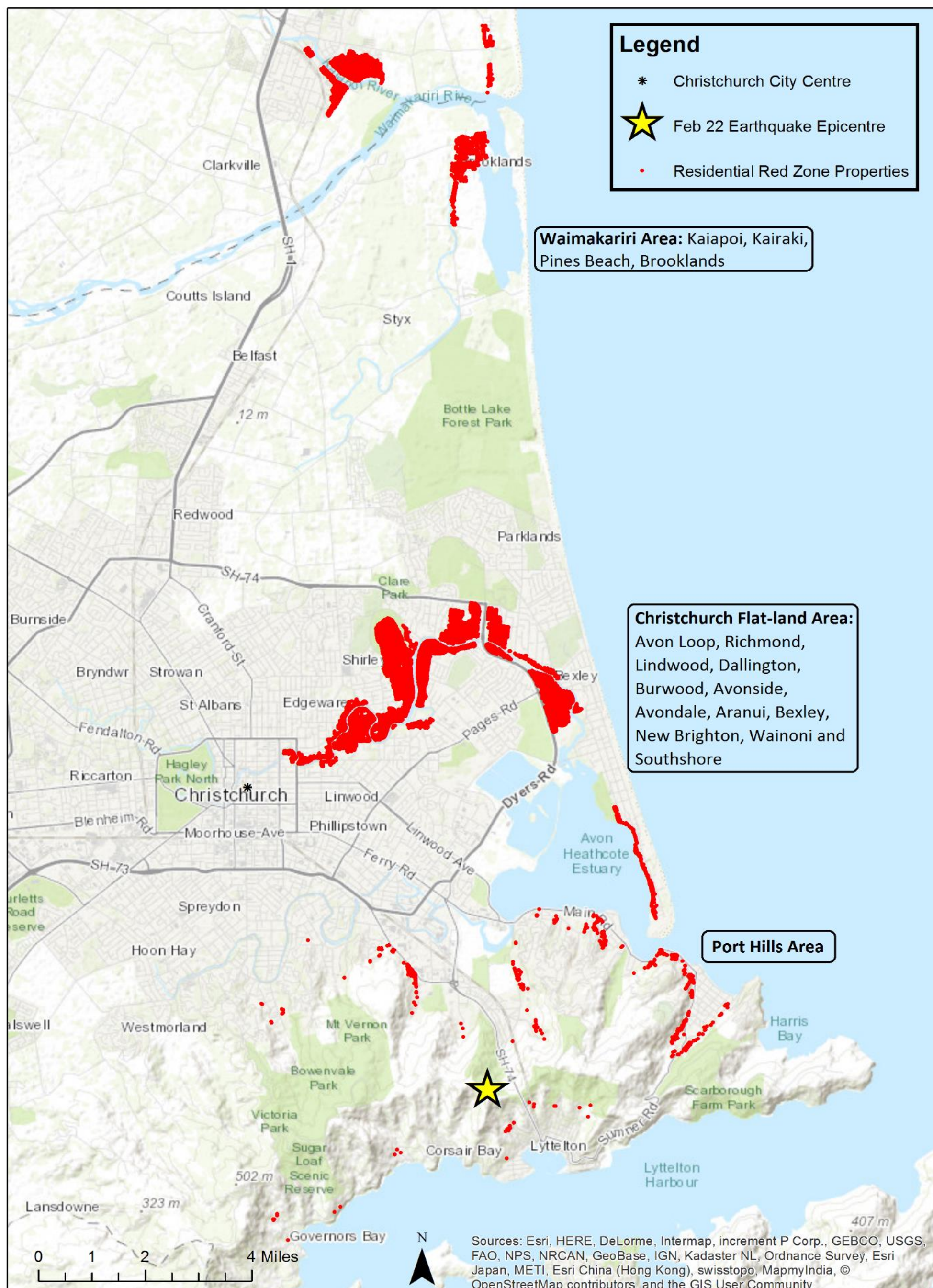


Table 3 – Estimation results - Spatial linear probability model

VARIABLES	Dependent dummy variable – Option choice					
	OLS	SAR	SDM (Total)	SDM (Chch. city)	SDM (Port Hills)	SDM (Wakamariri)
Main						
Improvement Value (log)	-0.177*** (0.011)	-0.171*** (0.010)	-0.160*** (0.011)	-0.167*** (0.014)	-0.105*** (0.028)	-0.166*** (0.020)
Land Value (log)	0.264*** (0.017)	0.254*** (0.014)	0.265*** (0.015)	0.300*** (0.018)	0.0311 (0.039)	0.270*** (0.042)
Damage Status	0.372*** (0.012)	0.366*** (0.009)	0.368*** (0.009)	0.325*** (0.012)	0.573*** (0.035)	0.451*** (0.018)
Spatial						
ρ		0.138*** (0.016)	0.132*** (0.017)	0.114*** (0.020)	-0.067 (0.076)	0.214*** (0.039)
Wx						
Improvement Value (log)			-0.093*** (0.022)	-0.092*** (0.028)	-0.115** (0.054)	-0.053 (0.041)
Land Value (log)			-0.028 (0.027)	0.001 (0.031)	-0.046 (0.065)	-0.197** (0.078)
Damage Status			0.021 (0.021)	0.006 (0.026)	0.225** (0.097)	0.0303 (0.042)
MB fixed eff.	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7482	7482	7482	5592	502	1388
Pseudo- R ² (%)	29.30	32.06	32.26	28.72	58.87	40.44

***/**/* indicating the significance levels of respectively 1%, 5% and 10%. Robust standard errors are shown in parentheses. Rho - ρ is the spatial autoregressive coefficient and Wx is the spillover effect coefficients. All models have Hausman p -value equal to zero.