

Multimedia Appendix 1

Table S1. The information of hyperparameters, packages and function code for each model

Models	Hyperparameter	Library Package and Code
Autoregressive Integrated Moving Average	Returns best ARIMA model according to either AIC, AICc or BIC value. e.g. Greece data order = c(5, 2, 2) seasonal = c(0, 0, 2) lambda="auto" frequency = 14	library(forecast) auto.arima(y,...) Arima(y, order = c(0, 0, 0), seasonal = c(0, 0, 0), xreg = NULL, include.mean = TRUE, include.drift = FALSE, include.constant, lambda = model\$lambda, biasadj = FALSE, method = c("CSS-ML", "ML", "CSS"), model = NULL, x = y, ...)
Feedforward Neural Network	NNAR(1,1,50) p =1, P = 1, size=50 maxit=100 frequency = 14	library(forecast) nnetar(y, p, P = 1, size, repeats = 20, xreg = NULL, lambda = NULL, model = NULL, subset = NULL, scale.inputs = TRUE, x = y, ...)
Multilayer Perceptron Neural Networks (MLPs)	m = frequency = 14 rep=20 hd=c(5,5,5)	library(nnfor) mlp(y, m = frequency(y), hd = NULL, reps = 20, comb = c("median", "mean", "mode"), lags = NULL, keep = NULL, difforder = NULL, outplot = c(FALSE, TRUE), sel.lag = c(TRUE, FALSE), allow.det.season = c(TRUE, FALSE), det.type = c("auto", "bin", "trg"), xreg = NULL, xreg.lags = NULL, xreg.keep = NULL,

		hd.auto.type = c("set", "valid", "cv", "elm"), hd.max = NULL, model = NULL, retrain = c(FALSE, TRUE), ...)
Long	X_shape2 = 1	library(caret)
Short-term	X_shape3 = 1	library(keras)
Memory (LSTM)	batch_size = 1 units = 1 scaler = c(0, 3316)	library(tensorflow) dim(x_train) <- c(length(x_train), 1, 1) batch_size = 1 units = 1
		<pre> model <- keras_model_sequential() model%>% layer_lstm(units, batch_input_shape = c(batch_size, X_shape2, X_shape3), stateful= TRUE)%>% layer_dense(units = 1) #Compile the model model %>% compile(loss = 'mean_squared_error', optimizer = optimizer_adam(lr= 0.02, decay = 1e-6), metrics = c('accuracy')) Epochs = 50 for(i in 1:Epochs){ model %>% fit(x_train, y_train, epochs=1, batch_size=batch_size, verbose=1, shuffle=FALSE) model %>% reset_states() } </pre>

Figure S1. The dynamic heatmap with policy measures for New Zealand



Figure S2. The dynamic heatmap with policy measures for Vietnam



Figure S3. The dynamic heatmap with policy measures for Taiwan

