---
title: “Dynamic Model - Structural Changes”
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date: “April 18, 2023”
output:
pdf_document: default

Starting pitcher

```
# Significant variables:
# Pooling:
hitter_vars_1 <- c("X_Triples_t_1",
                   "X_WAR_t")
# Lista
hitter_vars_1 <- paste(hitter_vars_1, collapse = " + ")
# Within
hitter_vars_2 <- c("X_Porcentaje_on_base_t_1",
                   "X_WAR_t")
# Lista
hitter_vars_2 <- paste(hitter_vars_2, collapse = " + ")
# Random effects
hitter_vars_3 <- c("X_Porcentaje_On_base_plus_slugging_2_t",
                   "X_Triples_t_1",
                   "X_WAR_t")
# Lista
hitter_vars_3 <- paste(hitter_vars_3, collapse = " + ")
# First Differences
hitter_vars_4 <- c("X_At_bats_t","X_At_bats_t_1",
                   "X_Bateos_t",
                   "X_Bateos_2_t","X_Bateos_2_t_1",
                   "X_Juegos_iniciados_t","X_Juegos_iniciados_t_1",
                   "X_Porcentaje_On_base_plus_slugging_t","X_Porcentaje_On_base_plus_slugging_t_1",
                   "X_Porcentaje_on_base_t","X_Porcentaje_on_base_t_1",
                   "X_Porcentaje_on_base_2_t",
                   "X_Triples_t", "X_Triples_2_t",
                   "X_WAR_t","X_WAR_t_1",
                   "X_WAR_2_t",
                   "X_Bateos_promedio_t_1",
                   "X_Home_runs_t_1",
                   "X_Runs_batted_in_t_1")
# Lista
hitter_vars_4 <- paste(hitter_vars_4, collapse = " + ")


# Pooling:
formula <- paste(vars_ms,
                 hitter_vars_1,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_1 <- plm(formula, data = hitter_data,
                          model = "pooling",
                          index = c("id", "Anio_ref"))
```

```r
# To store the results
hitter_results_stimation_1 <- coeftest(hitter_stimation_1,
                                       vcov = vcovHC(hitter_stimation_1,
                                                     type = "HC1",
                                                     cluster = "group"))
# Within:
formula <- paste(vars_fe,
                 hitter_vars_2,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_2 <- plm(formula, data = hitter_data,
                          model = "within",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_2 <- coeftest(hitter_stimation_2,
                                       vcov = vcovHC(hitter_stimation_2,
                                                     type = "HC1",
                                                     cluster = "group"))
# Random:
formula <- paste(vars_ms,
                 hitter_vars_3,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_3 <- plm(formula, data = hitter_data,
                          model = "random",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_3 <- coeftest(hitter_stimation_3,
                                       vcov = vcovHC(hitter_stimation_3,
                                                     type = "HC1",
                                                     cluster = "group"))
# First Differences:
formula <- paste(vars_fe,
                 hitter_vars_4,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_4 <- plm(formula, data = hitter_data,
                          model = "fd",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_4 <- coeftest(hitter_stimation_4,
                                       vcov = vcovHC(hitter_stimation_4,
                                                     type = "HC1",
                                                     cluster = "group"))

# Modelos
hitter_models <- list(pooling = hitter_results_stimation_1,
                      within = hitter_results_stimation_2,
                      random = hitter_results_stimation_3,
                      fd = hitter_results_stimation_4)


# Print the third block of results
```

```r
stargazer(hitter_models,
          no.space = TRUE,
          align = TRUE,
          type = "text",
          title = "Bateadores: Comparación de los modelos - Primer refinamiento",
          column.labels = c("Pooling", "Within",
                            "Random effects","First-Differences"))
```

```
Bateadores: Comparación de los modelos - Primer refinamiento
=============================================================================================
                                                  Dependent variable:
                                    ---------------------------------------------------------
                                    Pooling    Within    Random effects First-Differences
                                      (1)        (2)          (3)              (4)
---------------------------------------------------------------------------------------------
Edad_t                              -0.006**  -0.006       -0.006**         -0.011***
                                    (0.003)   (0.005)      (0.003)           (0.002)
Anios_de_contrato_t                  -0.004  -0.038***      -0.006          -0.048***
                                    (0.004)   (0.012)      (0.004)           (0.009)
team_num_t                           0.001     0.001        0.001           0.002***
                                    (0.001)   (0.001)      (0.001)           (0.001)
X_Porcentaje_On_base_plus_slugging_2_t                      -0.017
                                                            (0.010)
X_Triples_t_1                        0.010*                 0.009
                                    (0.005)                 (0.005)
X_At_bats_t                                                                  0.004***
                                                                              (0.001)
X_At_bats_t_1                                                               -0.001***
                                                                            (0.0004)
X_Bateos_t                                                                  -0.002**
                                                                              (0.001)
X_Bateos_2_t                                                                 -0.0001
                                                                            (0.0001)
X_Bateos_2_t_1                                                              -0.0004***
                                                                            (0.0001)
X_Juegos_iniciados_t                                                        -0.005***
                                                                              (0.002)
X_Juegos_iniciados_t_1                                                       0.006***
                                                                              (0.001)
X_Porcentaje_On_base_plus_slugging_t                                         -0.047*
                                                                              (0.027)
X_Porcentaje_On_base_plus_slugging_t_1                                      -0.054***
                                                                              (0.015)
X_Porcentaje_on_base_t                                                        0.066
                                                                              (0.043)
X_Porcentaje_on_base_t_1                    0.033                           0.079***
                                           (0.028)                           (0.026)
X_Porcentaje_on_base_2_t                                                     0.066***
                                                                              (0.014)
X_Triples_t                                                                 -0.064***
                                                                              (0.010)
X_Triples_2_t                                                                0.023***
```

```
                                                                                (0.005)
X_WAR_t                                  0.016**  0.036***     0.018***        0.013***
                                         (0.007)   (0.009)     (0.006)         (0.005)
X_WAR_t_1                                                                      0.010**
                                                                               (0.005)
X_WAR_2_t                                                                      0.011**
                                                                               (0.004)
X_Bateos_promedio_t_1                                                           0.031
                                                                               (0.021)
X_Home_runs_t_1                                                               -0.007***
                                                                               (0.002)
X_Runs_batted_in_t_1                                                           0.004**
                                                                               (0.002)
Constant                                 0.187**              0.170**
                                         (0.081)              (0.085)
================================================================================================
================================================================================================
Note:                                                          *p<0.1; **p<0.05; ***p<0.01
```

```r
# Significant variables:
# Pooling:
hitter_vars_1 <- c("X_Triples_t_1",
                   "X_WAR_t")
# Lista
hitter_vars_1 <- paste(hitter_vars_1, collapse = " + ")

# Within
hitter_vars_2 <- c("X_WAR_t")

# Random effects
hitter_vars_3 <- c("X_WAR_t")

# First Difference
hitter_vars_4 <- c("X_At_bats_t","X_At_bats_t_1",
                   "X_Bateos_t",
                   "X_Bateos_2_t_1",
                   "X_Juegos_iniciados_t","X_Juegos_iniciados_t_1",
                   "X_Porcentaje_On_base_plus_slugging_t","X_Porcentaje_On_base_plus_slugging_t_1",
                   "X_Porcentaje_on_base_t_1",
                   "X_Porcentaje_on_base_2_t",
                   "X_Triples_t", "X_Triples_2_t",
                   "X_WAR_t","X_WAR_t_1",
                   "X_WAR_2_t",
                   "X_Home_runs_t_1",
                   "X_Runs_batted_in_t_1")
# Lista
hitter_vars_4 <- paste(hitter_vars_4, collapse = " + ")


# Pooling:
formula <- paste(vars_ms,
                 hitter_vars_1,
                 sep = " + ")
# Create a model to store the results
```

```r
hitter_stimation_1 <- plm(formula, data = hitter_data,
                          model = "pooling",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_1 <- coeftest(hitter_stimation_1,
                                       vcov = vcovHC(hitter_stimation_1,
                                                     type = "HC1",
                                                     cluster = "group"))
# Within:
formula <- paste(vars_fe,
                 hitter_vars_2,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_2 <- plm(formula, data = hitter_data,
                          model = "within",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_2 <- coeftest(hitter_stimation_2,
                                       vcov = vcovHC(hitter_stimation_2,
                                                     type = "HC1",
                                                     cluster = "group"))
# Random:
formula <- paste(vars_ms,
                 hitter_vars_3,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_3 <- plm(formula, data = hitter_data,
                          model = "random",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_3 <- coeftest(hitter_stimation_3,
                                       vcov = vcovHC(hitter_stimation_3,
                                                     type = "HC1",
                                                     cluster = "group"))
# First Differences:
formula <- paste(vars_fe,
                 hitter_vars_4,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_4 <- plm(formula, data = hitter_data,
                          model = "fd",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_4 <- coeftest(hitter_stimation_4,
                                       vcov = vcovHC(hitter_stimation_4,
                                                     type = "HC1",
                                                     cluster = "group"))

# Modelos
hitter_models <- list(pooling = hitter_results_stimation_1,
                      within = hitter_results_stimation_2,
                      random = hitter_results_stimation_3,
                      fd = hitter_results_stimation_4)
```

```r
# Print the third block of results
stargazer(hitter_models,
          no.space = TRUE,
          align = TRUE,
          type = "text",
          title = "Bateadores: Comparación de los modelos - Segundo refinamiento",
          column.labels = c("Pooling", "Within",
                            "Random effects","First-Differences"))
```

Bateadores: Comparación de los modelos - Segundo refinamiento

	Dependent variable:			
	Pooling	Within	Random effects	First-Differences
	(1)	(2)	(3)	(4)
Edad_t	-0.006**	-0.006	-0.006**	-0.011***
	(0.003)	(0.004)	(0.003)	(0.002)
Anios_de_contrato_t	-0.004	-0.039***	-0.007*	-0.050***
	(0.004)	(0.012)	(0.004)	(0.009)
team_num_t	0.001	0.001	0.001	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)
X_Triples_t_1	0.010*			
	(0.005)			
X_At_bats_t				0.004***
				(0.001)
X_At_bats_t_1				-0.002***
				(0.0003)
X_Bateos_t				-0.003***
				(0.001)
X_Bateos_2_t_1				-0.0005***
				(0.0001)
X_Juegos_iniciados_t				-0.005***
				(0.002)
X_Juegos_iniciados_t_1				0.006***
				(0.001)
X_Porcentaje_On_base_plus_slugging_t				-0.017
				(0.010)
X_Porcentaje_On_base_plus_slugging_t_1				-0.049***
				(0.014)
X_Porcentaje_on_base_t_1				0.107***
				(0.014)
X_Porcentaje_on_base_2_t				0.081***
				(0.026)
X_Triples_t				-0.064***
				(0.009)
X_Triples_2_t				0.024***
				(0.005)
X_WAR_t	0.016**	0.035***	0.019***	0.014***
	(0.007)	(0.009)	(0.006)	(0.005)
X_WAR_t_1				0.008*

```
                                                                                (0.004)
X_WAR_2_t                                                                       0.010**
                                                                                (0.005)
X_Home_runs_t_1                                                                -0.006***
                                                                                (0.002)
X_Runs_batted_in_t_1                                                            0.004**
                                                                                (0.002)
Constant                                0.187**             0.181**
                                        (0.081)             (0.082)
================================================================================================
================================================================================================
Note:                                                                *p<0.1; **p<0.05; ***p<0.01
```

```r
# Significant variables:
# Pooling:
hitter_vars_1 <- c("X_Triples_t_1",
                   "X_WAR_t")
# Lista
hitter_vars_1 <- paste(hitter_vars_1, collapse = " + ")

# Within
hitter_vars_2 <- c("X_WAR_t")

# Random effects
hitter_vars_3 <- c("X_WAR_t")

# First Differences
hitter_vars_4 <- c("X_At_bats_t","X_At_bats_t_1",
                   "X_Bateos_t",
                   "X_Bateos_2_t_1",
                   "X_Juegos_iniciados_t","X_Juegos_iniciados_t_1",
                   "X_Porcentaje_On_base_plus_slugging_t_1",
                   "X_Porcentaje_on_base_t_1",
                   "X_Porcentaje_on_base_2_t",
                   "X_Triples_t", "X_Triples_2_t",
                   "X_WAR_t","X_WAR_t_1",
                   "X_WAR_2_t",
                   "X_Home_runs_t_1",
                   "X_Runs_batted_in_t_1")
# Lista
hitter_vars_4 <- paste(hitter_vars_4, collapse = " + ")


# Pooling:
formula <- paste(vars_ms,
                 hitter_vars_1,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_1 <- plm(formula, data = hitter_data,
                          model = "pooling",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_1 <- coeftest(hitter_stimation_1,
                                       vcov = vcovHC(hitter_stimation_1,
```

```
                                                    type = "HC1",
                                                    cluster = "group"))
# Within:
formula <- paste(vars_fe,
                 hitter_vars_2,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_2 <- plm(formula, data = hitter_data,
                          model = "within",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_2 <- coeftest(hitter_stimation_2,
                                       vcov = vcovHC(hitter_stimation_2,
                                                     type = "HC1",
                                                     cluster = "group"))
# Random:
formula <- paste(vars_ms,
                 hitter_vars_3,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_3 <- plm(formula, data = hitter_data,
                          model = "random",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_3 <- coeftest(hitter_stimation_3,
                                       vcov = vcovHC(hitter_stimation_3,
                                                     type = "HC1",
                                                     cluster = "group"))
# First Differences:
formula <- paste(vars_fe,
                 hitter_vars_4,
                 sep = " + ")
# Create a model to store the results
hitter_stimation_4 <- plm(formula, data = hitter_data,
                          model = "fd",
                          index = c("id", "Anio_ref"))
# To store the results
hitter_results_stimation_4 <- coeftest(hitter_stimation_4,
                                       vcov = vcovHC(hitter_stimation_4,
                                                     type = "HC1",
                                                     cluster = "group"))

# Modelos
hitter_models <- list(pooling = hitter_results_stimation_1,
                      within = hitter_results_stimation_2,
                      random = hitter_results_stimation_3,
                      fd = hitter_results_stimation_4)
# List to store results
hitter_end_models <- list(pooling = hitter_stimation_1,
                          within = hitter_stimation_2,
                          random = hitter_stimation_3,
                          fd = hitter_stimation_4)
```

```r
# Print the third block of results
stargazer(hitter_models,
          no.space = TRUE,
          align = TRUE,
          type = "text",
          title = "Bateadores: Comparación de los modelos - Econométrico final",
          column.labels = c("Pooling", "Within",
                            "Random effects","First-Differences"))
```

Bateadores: Comparación de los modelos - Econométrico final

	Dependent variable:			
	Pooling	Within	Random effects	First-Differences
	(1)	(2)	(3)	(4)
Edad_t	-0.006**	-0.006	-0.006**	-0.011***
	(0.003)	(0.004)	(0.003)	(0.002)
Anios_de_contrato_t	-0.004	-0.039***	-0.007*	-0.050***
	(0.004)	(0.012)	(0.004)	(0.009)
team_num_t	0.001	0.001	0.001	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)
X_Triples_t_1	0.010*			
	(0.005)			
X_At_bats_t				0.003***
				(0.001)
X_At_bats_t_1				-0.002***
				(0.0004)
X_Bateos_t				-0.003***
				(0.001)
X_Bateos_2_t_1				-0.0005***
				(0.0001)
X_Juegos_iniciados_t				-0.004**
				(0.002)
X_Juegos_iniciados_t_1				0.006***
				(0.001)
X_Porcentaje_On_base_plus_slugging_t_1				-0.056***
				(0.012)
X_Porcentaje_on_base_t_1				0.113***
				(0.012)
X_Porcentaje_on_base_2_t				0.063***
				(0.019)
X_Triples_t				-0.067***
				(0.010)
X_Triples_2_t				0.025***
				(0.005)
X_WAR_t	0.016**	0.035***	0.019***	0.015***
	(0.007)	(0.009)	(0.006)	(0.004)
X_WAR_t_1				0.008*
				(0.005)
X_WAR_2_t				0.010**
				(0.005)

```
X_Home_runs_t_1                                                          -0.006***
                                                                          (0.002)
X_Runs_batted_in_t_1                                                      0.004**
                                                                          (0.002)
Constant                                0.187**          0.181**
                                        (0.081)          (0.082)
=========================================================================================
=========================================================================================
Note:                                                  *p<0.1; **p<0.05; ***p<0.01
```

```r
# create an empty list to store the test results
test_results <- list()

# loop through every possible pair of models
for (i in 1:(length(hitter_end_models)-1)) {
  for (j in (i+1):length(hitter_end_models)) {
    # apply phtest to the pair of models
    test_result <- phtest(hitter_end_models[[i]], hitter_end_models[[j]])
    # add the test result to the list
    test_results[[paste0(names(hitter_end_models[i]), "_vs_", names(hitter_end_models[j]))]] <- test_res
  }
}

# view the test results
test_results
```

```
$pooling_vs_within

    Hausman Test

data:  formula
chisq = 24.791, df = 4, p-value = 5.542e-05
alternative hypothesis: one model is inconsistent


$pooling_vs_random

    Hausman Test

data:  formula
chisq = 34.85, df = 4, p-value = 4.988e-07
alternative hypothesis: one model is inconsistent


$pooling_vs_fd

    Hausman Test

data:  formula
chisq = 29.901, df = 4, p-value = 5.128e-06
alternative hypothesis: one model is inconsistent


$within_vs_random
```

```
    Hausman Test

data:  formula
chisq = 19.316, df = 4, p-value = 0.0006812
alternative hypothesis: one model is inconsistent


$within_vs_fd

    Hausman Test

data:  formula
chisq = 19.74, df = 4, p-value = 0.0005619
alternative hypothesis: one model is inconsistent


$random_vs_fd

    Hausman Test

data:  formula
chisq = 26.893, df = 4, p-value = 2.089e-05
alternative hypothesis: one model is inconsistent
```

```r
# Significant variables:
fielder_vars_1 <- c('X_Control_2',
                    'X_Control',
                    'X_Dominio_2',
                    'X_Dominio',
                    'X_ERA_2',
                    'X_ERA',
                    'X_Saves_2',
                    'X_Saves',
                    'X_WHIP_2',
                    'X_WHIP')
# Add suffix "_t" to each name
stat_fielder_t <- paste0(fielder_vars_1, "_t")
stat_fielder_t_1 <- paste0(fielder_vars_1, "_t_1")
# Lista
fielder_vars_1 <- c(paste(stat_fielder_t, collapse = " + "),
                    paste(stat_fielder_t_1, collapse = " + "))
# Within
fielder_vars_2 <- c('X_Carreras',
                    'X_Comando_2',
                    'X_ERA',
                    'X_Saves_2',
                    'X_Saves',
                    'X_Strike_outs_2',
                    'X_WAR_2')
# Add suffix "_t" to each name
stat_fielder_t <- paste0(fielder_vars_2, "_t")
stat_fielder_t_1 <- paste0(fielder_vars_2, "_t_1")
# Lista
```

```
fielder_vars_2 <- c(paste(stat_fielder_t, collapse = " + "),
                    paste(stat_fielder_t_1, collapse = " + "))
# Random effects
fielder_vars_3 <- c('X_Control_2',
                    'X_Control',
                    'X_Dominio_2',
                    'X_Dominio',
                    'X_ERA_2',
                    'X_ERA',
                    'X_Saves_2',
                    'X_Saves',
                    'X_WHIP_2',
                    'X_WHIP')
# Add suffix "_t" to each name
stat_fielder_t <- paste0(fielder_vars_3, "_t")
stat_fielder_t_1 <- paste0(fielder_vars_3, "_t_1")
# Lista
fielder_vars_3 <- c(paste(stat_fielder_t, collapse = " + "),
                    paste(stat_fielder_t_1, collapse = " + "))
# First Differences
fielder_vars_4 <- c('X_Bateos_2',
                    'X_Bateos',
                    'X_Carreras_ganadas_2',
                    'X_Carreras_ganadas',
                    'X_ERA',
                    'X_Carreras',
                    'X_Comando_2',
                    'X_Comando',
                    'X_Control_2',
                    'X_Control',
                    'X_Dominio_2',
                    'X_Dominio',
                    'X_Inning_pitched_2',
                    'X_Inning_pitched',
                    'X_Losses_2',
                    'X_Saves_2',
                    'X_Saves',
                    'X_Strike_outs_2',
                    'X_Strike_outs',
                    'X_WAR_2',
                    'X_WHIP_2',
                    'X_WHIP',
                    'X_Walks_2',
                    'X_Walks',
                    'X_Wins')
# Add suffix "_t" to each name
stat_fielder_t <- paste0(fielder_vars_4, "_t")
stat_fielder_t_1 <- paste0(fielder_vars_4, "_t_1")
# Lista
fielder_vars_4 <- c(paste(stat_fielder_t, collapse = " + "),
                    paste(stat_fielder_t_1, collapse = " + "))
```

```r
# Pooling:
formula <- paste(vars_ms,
                 fielder_vars_1[[1]],
                 sep = " + ")
formula <- paste(formula,
                 fielder_vars_1[[2]],
                 sep = " + ")
# Create a model to store the results
fielder_stimation_1 <- plm(formula, data = starting_data,
                           model = "pooling",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_1 <- coeftest(fielder_stimation_1,
                                        vcov = vcovHC(fielder_stimation_1,
                                                      type = "HC1",
                                                      cluster = "group"))
# Within:
formula <- paste(vars_fe,
                 fielder_vars_2[[1]],
                 sep = " + ")
formula <- paste(formula,
                 fielder_vars_2[[2]],
                 sep = " + ")
# Create a model to store the results
fielder_stimation_2 <- plm(formula, data = starting_data,
                           model = "within",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_2 <- coeftest(fielder_stimation_2,
                                        vcov = vcovHC(fielder_stimation_2,
                                                      type = "HC1",
                                                      cluster = "group"))
# Random:
formula <- paste(vars_ms,
                 fielder_vars_3[[1]],
                 sep = " + ")
formula <- paste(formula,
                 fielder_vars_3[[2]],
                 sep = " + ")
# Create a model to store the results
fielder_stimation_3 <- plm(formula, data = starting_data,
                           model = "random",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_3 <- coeftest(fielder_stimation_3,
                                        vcov = vcovHC(fielder_stimation_3,
                                                      type = "HC1",
                                                      cluster = "group"))
# First Differences:
formula <- paste(vars_fe,
                 fielder_vars_4[[1]],
                 sep = " + ")
formula <- paste(formula,
```

```
                fielder_vars_4[[2]],
                sep = " + ")
# Create a model to store the results
fielder_stimation_4 <- plm(formula, data = starting_data ,
                           model = "fd",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_4 <- coeftest(fielder_stimation_4,
                                        vcov = vcovHC(fielder_stimation_4,
                                                      type = "HC1",
                                                      cluster = "group"))

# Models
fielder_models <- list(pooling = fielder_results_stimation_1,
                       within = fielder_results_stimation_2,
                       random = fielder_results_stimation_3,
                       fd = fielder_results_stimation_4)

# Print the third block of results
stargazer(fielder_models,
          no.space = TRUE,
          align = TRUE,
          type = "text",
          title = "Lanzadores Iniciales: Comparación de los modelos",
          column.labels = c("Pooling", "Within",
                            "Random effects","First-Differences"))
```

```
Lanzadores Iniciales: Comparación de los modelos
================================================================================
                                        Dependent variable:
                            ---------------------------------------------------

                            Pooling   Within   Random effects First-Differences
                              (1)       (2)         (3)              (4)
--------------------------------------------------------------------------------
Edad_t                      -0.008**  -0.023*     -0.009**        -0.028***
                            (0.004)   (0.012)     (0.004)          (0.007)
Anios_de_contrato_t         -0.015*   -0.025      -0.015*         -0.042***
                            (0.009)   (0.023)     (0.009)          (0.013)
team_num_t                  0.003**   0.005**     0.003**           0.001
                            (0.001)   (0.002)     (0.001)          (0.002)
X_Bateos_2_t                                                     0.001***
                                                                 (0.0004)
X_Bateos_t                                                       0.023***
                                                                  (0.003)
X_Carreras_ganadas_2_t                                           -0.001***
                                                                 (0.0004)
X_Carreras_ganadas_t                                              0.007
                                                                  (0.006)
X_Control_2_t               -0.181**              -0.176**        -0.051
                            (0.074)               (0.075)         (0.082)
X_Control_t                  0.082*                0.076*         -0.011
                            (0.045)               (0.046)         (0.045)
```

X_Dominio_2_t	-0.045		-0.047	-0.194***
	(0.029)		(0.030)	(0.050)
X_Dominio_t	0.008		0.010	0.159***
	(0.023)		(0.023)	(0.048)
X_ERA_2_t	0.001		0.001	
	(0.003)		(0.003)	
X_Inning_pitched_2_t				-0.001***
				(0.0003)
X_Inning_pitched_t				-0.008**
				(0.003)
X_Losses_2_t				-0.003
				(0.002)
X_Carreras_t		0.003		-0.037***
		(0.003)		(0.009)
X_Comando_2_t		-0.005		-0.014
		(0.008)		(0.009)
X_Comando_t				0.036***
				(0.013)
X_ERA_t	-0.017*	0.0004	-0.016*	-0.066***
	(0.009)	(0.013)	(0.009)	(0.015)
X_Saves_2_t	-0.253	-1.291*	-0.284	-4.154**
	(0.874)	(0.708)	(0.864)	(1.822)
X_Saves_t	0.261	0.975**	0.291	3.006**
	(0.579)	(0.482)	(0.573)	(1.237)
X_WHIP_2_t	0.006		0.007	0.114***
	(0.020)		(0.020)	(0.021)
X_WHIP_t	0.005		0.004	0.031
	(0.020)		(0.019)	(0.020)
X_Walks_2_t				0.001**
				(0.0005)
X_Walks_t				0.013**
				(0.006)
X_Wins_t				-0.008
				(0.012)
X_Bateos_2_t_1				-0.001**
				(0.0003)
X_Bateos_t_1				0.010
				(0.006)
X_Carreras_ganadas_2_t_1				0.001
				(0.0003)
X_Carreras_ganadas_t_1				0.007
				(0.007)
X_Control_2_t_1	-0.019		-0.021	-0.099***
	(0.036)		(0.037)	(0.035)
X_Control_t_1	-0.027		-0.028	-0.039
	(0.037)		(0.037)	(0.025)
X_Dominio_2_t_1	0.009		0.008	-0.131***
	(0.037)		(0.037)	(0.027)
X_Dominio_t_1	0.044*		0.041*	0.048**
	(0.024)		(0.024)	(0.022)
X_ERA_2_t_1	0.006		0.005	
	(0.005)		(0.004)	
X_Inning_pitched_2_t_1				0.0002
				(0.0003)

```
X_Inning_pitched_t_1                                                  -0.011***
                                                                       (0.002)
X_Losses_2_t_1                                                        -0.007***
                                                                       (0.002)
X_Strike_outs_2_t                    -0.0001                           0.0001
                                    (0.0001)                          (0.0001)
X_Strike_outs_t                                                       0.011***
                                                                       (0.003)
X_WAR_2_t                             0.002                           -0.002
                                     (0.004)                          (0.005)
X_Carreras_t_1                       -0.002                            0.003
                                     (0.003)                          (0.003)
X_Comando_2_t_1                      0.00001                          0.0004***
                                    (0.00000)                         (0.0001)
X_Comando_t_1                                                         -0.054***
                                                                       (0.012)
X_ERA_t_1              -0.016*  -0.029**     -0.017*                  -0.043***
                       (0.009)   (0.012)     (0.009)                   (0.009)
X_Saves_2_t_1          -0.217**  0.166*      -0.214**                   0.046
                       (0.106)   (0.097)     (0.104)                   (0.148)
X_Saves_t_1            0.419**   -0.168      0.412**                    0.116
                       (0.182)   (0.163)     (0.179)                   (0.280)
X_WHIP_2_t_1            -0.020                -0.017                    0.010
                       (0.021)               (0.021)                   (0.029)
X_WHIP_t_1              -0.003                -0.004                    0.003
                       (0.019)               (0.019)                   (0.025)
X_Walks_2_t_1                                                          0.001
                                                                      (0.0005)
X_Walks_t_1                                                           -0.010
                                                                       (0.007)
X_Wins_t_1                                                            0.017**
                                                                       (0.007)
X_Strike_outs_2_t_1                   0.0003                          0.001***
                                     (0.0002)                         (0.0002)
X_Strike_outs_t_1                                                      -0.010*
                                                                       (0.005)
X_WAR_2_t_1                          -0.008**                         -0.021***
                                      (0.004)                          (0.003)
Constant               0.251**               0.261**
                       (0.121)               (0.126)
================================================================================
================================================================================
Note:                                            *p<0.1; **p<0.05; ***p<0.01
```

```r
# Significant variables:
fielder_vars_1 <- c('X_Control_2_t',
                    'X_Control_t',
                    'X_Dominio_t_1',
                    'X_ERA_t_1',
                    'X_ERA_t',
                    'X_Saves_2_t_1',
                    'X_Saves_t_1')
# Lista
fielder_vars_1 <- paste(fielder_vars_1, collapse = " + ")
```

```
# Within
fielder_vars_2 <- c('X_ERA_t_1',
                    'X_Saves_2_t',
                    'X_Saves_2_t_1',
                    'X_Saves_t',
                    'X_WAR_2_t_1')
# Lista
fielder_vars_2 <- paste(fielder_vars_2, collapse = " + ")
# Random effects
fielder_vars_3 <- c('X_Control_2_t',
                    'X_Control_t',
                    'X_Dominio_t_1',
                    'X_ERA_t',
                    'X_ERA_t_1',
                    'X_Saves_2_t_1',
                    'X_Saves_t_1')
# Lista
fielder_vars_3 <- paste(fielder_vars_3, collapse = " + ")
# First Differences
fielder_vars_4 <- c('X_Bateos_2_t',
                    'X_Bateos_2_t_1',
                    'X_Bateos_t',
                    'X_Carreras_ganadas_2_t',
                    'X_ERA_t',
                    'X_ERA_t_1',
                    'X_Carreras_t',
                    'X_Comando_2_t_1',
                    'X_Comando_t',
                    'X_Comando_t_1',
                    'X_Control_2_t_1',
                    'X_Control_t_1',
                    'X_Dominio_2_t',
                    'X_Dominio_t',
                    'X_Dominio_2_t_1',
                    'X_Dominio_t_1',
                    'X_Inning_pitched_2_t',
                    'X_Inning_pitched_t',
                    'X_Inning_pitched_t_1',
                    'X_Losses_2_t_1',
                    'X_Saves_2_t',
                    'X_Saves_t',
                    'X_Strike_outs_2_t_1',
                    'X_Strike_outs_t',
                    'X_Strike_outs_t_1',
                    'X_WAR_2_t_1',
                    'X_WHIP_2_t',
                    'X_Walks_2_t',
                    'X_Walks_t',
                    'X_Wins_t_1')
# Lista
fielder_vars_4 <- paste(fielder_vars_4, collapse = " + ")
```

```r
# Pooling:
formula <- paste(vars_ms,
                 fielder_vars_1,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_1 <- plm(formula, data = starting_data,
                           model = "pooling",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_1 <- coeftest(fielder_stimation_1,
                                        vcov = vcovHC(fielder_stimation_1,
                                                      type = "HC1",
                                                      cluster = "group"))
# Within:
formula <- paste(vars_fe,
                 fielder_vars_2,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_2 <- plm(formula, data = starting_data,
                           model = "within",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_2 <- coeftest(fielder_stimation_2,
                                        vcov = vcovHC(fielder_stimation_2,
                                                      type = "HC1",
                                                      cluster = "group"))
# Random:
formula <- paste(vars_ms,
                 fielder_vars_3,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_3 <- plm(formula, data = starting_data,
                           model = "random",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_3 <- coeftest(fielder_stimation_3,
                                        vcov = vcovHC(fielder_stimation_3,
                                                      type = "HC1",
                                                      cluster = "group"))
# First Differences:
formula <- paste(vars_fe,
                 fielder_vars_4,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_4 <- plm(formula, data = starting_data ,
                           model = "fd",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_4 <- coeftest(fielder_stimation_4,
                                        vcov = vcovHC(fielder_stimation_4,
                                                      type = "HC1",
                                                      cluster = "group"))
```

```r
# Modelos
fielder_models <- list(pooling = fielder_results_stimation_1,
                       within = fielder_results_stimation_2,
                       random = fielder_results_stimation_3,
                       fd = fielder_results_stimation_4)


# Print the third block of results
stargazer(fielder_models,
          no.space = TRUE,
          align = TRUE,
          type = "text",
          title = "Lanzadores Iniciales: Comparación de los modelos - Primer refinamiento",
          column.labels = c("Pooling", "Within",
                            "Random effects","First-Differences"))
```

```
Lanzadores Iniciales: Comparación de los modelos - Primer refinamiento
================================================================================
                                  Dependent variable:
                      ---------------------------------------------------
                       Pooling   Within   Random effects First-Differences
                         (1)       (2)         (3)              (4)
--------------------------------------------------------------------------------
Edad_t                -0.008**  -0.020*     -0.009**        -0.016***
                       (0.004)   (0.012)     (0.004)          (0.005)
Anios_de_contrato_t    -0.013*   -0.017      -0.013*         -0.057***
                       (0.007)   (0.020)     (0.007)          (0.012)
team_num_t              0.002     0.004       0.002           0.002
                       (0.001)   (0.002)     (0.001)          (0.001)
X_Control_2_t         -0.157**                -0.148**
                       (0.071)                 (0.071)
X_Control_t            0.091**                 0.084**
                       (0.041)                 (0.041)
X_Bateos_2_t                                                  0.0005**
                                                              (0.0002)
X_Bateos_2_t_1                                               -0.0004***
                                                              (0.0001)
X_Bateos_t                                                    0.020***
                                                               (0.002)
X_Carreras_ganadas_2_t                                       -0.001***
                                                              (0.0003)
X_Dominio_t_1         0.047***                0.043***        0.042***
                       (0.014)                 (0.014)          (0.009)
X_Inning_pitched_2_t                                         -0.001***
                                                              (0.0001)
X_Inning_pitched_t                                            -0.001
                                                               (0.002)
X_Inning_pitched_t_1                                           0.001
                                                              (0.001)
X_Losses_2_t_1                                               -0.003***
                                                               (0.001)
X_ERA_t_1             -0.019*** -0.034***   -0.019***       -0.035***
```

```
                        (0.006)   (0.011)     (0.006)          (0.006)
X_Carreras_t                                                   -0.023***
                                                                (0.003)
X_Comando_2_t_1                                                0.0004***
                                                               (0.0001)
X_Comando_t                                                    0.047***
                                                                (0.006)
X_Comando_t_1                                                  -0.046***
                                                                (0.006)
X_Control_2_t_1                                                -0.098***
                                                                (0.014)
X_Control_t_1                                                  -0.047**
                                                                (0.020)
X_Dominio_2_t                                                  -0.152***
                                                                (0.012)
X_Dominio_t                                                    0.136***
                                                                (0.021)
X_Dominio_2_t_1                                                -0.084***
                                                                (0.011)
X_ERA_t                 -0.013**                 -0.012**      -0.047***
                         (0.006)                 (0.006)        (0.007)
X_Saves_2_t                      -1.883***                     -2.416***
                                  (0.656)                       (0.448)
X_Saves_2_t_1           -0.194**  0.066***      -0.170**
                         (0.090)   (0.019)      (0.083)
X_Saves_t_1              0.374**                 0.332**
                         (0.159)                 (0.145)
X_Saves_t                        1.447***                      1.745***
                                  (0.465)                       (0.294)
X_Strike_outs_2_t_1                                            0.001***
                                                               (0.0001)
X_Strike_outs_t                                                0.006***
                                                                (0.001)
X_Strike_outs_t_1                                              -0.006***
                                                                (0.002)
X_WAR_2_t_1                      -0.008**                      -0.017***
                                  (0.003)                       (0.002)
X_WHIP_2_t                                                     0.084***
                                                                (0.012)
X_Walks_2_t                                                    0.001***
                                                               (0.0002)
X_Walks_t                                                      0.007***
                                                                (0.002)
X_Wins_t_1                                                      0.004
                                                                (0.003)
Constant                0.257**                  0.275**
                         (0.123)                 (0.132)
================================================================================
================================================================================
Note:                                          *p<0.1; **p<0.05; ***p<0.01
```

```r
# Significant variables:
fielder_vars_1 <- c('X_Control_2_t',
                    'X_Control_t',
```

```
                    'X_Dominio_t_1',
                    'X_ERA_t_1',
                    'X_ERA_t',
                    'X_Saves_2_t_1',
                    'X_Saves_t_1')
# Lista
fielder_vars_1 <- paste(fielder_vars_1, collapse = " + ")
# Within
fielder_vars_2 <- c('X_ERA_t_1',
                    'X_Saves_2_t',
                    'X_Saves_2_t_1',
                    'X_Saves_t',
                    'X_WAR_2_t_1')
# Lista
fielder_vars_2 <- paste(fielder_vars_2, collapse = " + ")
# Random effects
fielder_vars_3 <- c('X_Control_2_t',
                    'X_Control_t',
                    'X_Dominio_t_1',
                    'X_ERA_t',
                    'X_ERA_t_1',
                    'X_Saves_2_t_1',
                    'X_Saves_t_1')
# Lista
fielder_vars_3 <- paste(fielder_vars_3, collapse = " + ")
# First Differences
fielder_vars_4 <- c('X_Bateos_2_t',
                    'X_Bateos_2_t_1',
                    'X_Bateos_t',
                    'X_Carreras_ganadas_2_t',
                    'X_ERA_t',
                    'X_ERA_t_1',
                    'X_Carreras_t',
                    'X_Comando_2_t_1',
                    'X_Comando_t',
                    'X_Comando_t_1',
                    'X_Control_2_t_1',
                    'X_Control_t_1',
                    'X_Dominio_2_t',
                    'X_Dominio_t',
                    'X_Dominio_2_t_1',
                    'X_Dominio_t_1',
                    'X_Inning_pitched_2_t',
                    'X_Losses_2_t_1',
                    'X_Saves_2_t',
                    'X_Saves_t',
                    'X_Strike_outs_2_t_1',
                    'X_Strike_outs_t',
                    'X_Strike_outs_t_1',
                    'X_WAR_2_t_1',
                    'X_WHIP_2_t',
                    'X_Walks_2_t',
                    'X_Walks_t',
```

```
                    '-1')
# Lista
fielder_vars_4 <- paste(fielder_vars_4, collapse = " + ")


# Pooling:
formula <- paste(vars_ms,
                 fielder_vars_1,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_1 <- plm(formula, data = starting_data,
                           model = "pooling",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_1 <- coeftest(fielder_stimation_1,
                                        vcov = vcovHC(fielder_stimation_1,
                                                      type = "HC1",
                                                      cluster = "group"))
# Within:
formula <- paste(vars_fe,
                 fielder_vars_2,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_2 <- plm(formula, data = starting_data,
                           model = "within",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_2 <- coeftest(fielder_stimation_2,
                                        vcov = vcovHC(fielder_stimation_2,
                                                      type = "HC1",
                                                      cluster = "group"))
# Random:
formula <- paste(vars_ms,
                 fielder_vars_3,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_3 <- plm(formula, data = starting_data,
                           model = "random",
                           index = c("id", "Anio_ref"))
# To store the results
fielder_results_stimation_3 <- coeftest(fielder_stimation_3,
                                        vcov = vcovHC(fielder_stimation_3,
                                                      type = "HC1",
                                                      cluster = "group"))
# First Differences:
formula <- paste(vars_fe,
                 fielder_vars_4,
                 sep = " + ")
# Create a model to store the results
fielder_stimation_4 <- plm(formula, data = starting_data ,
                           model = "fd",
                           index = c("id", "Anio_ref"))
# To store the results
```

```r
fielder_results_stimation_4 <- coeftest(fielder_stimation_4,
                                        vcov = vcovHC(fielder_stimation_4,
                                                      type = "HC1",
                                                      cluster = "group"))

# Modelos
fielder_models <- list(pooling = fielder_results_stimation_1,
                       within = fielder_results_stimation_2,
                       random = fielder_results_stimation_3,
                       fd = fielder_results_stimation_4)
# List to store models:
fielder_end_models <- list(pooling = fielder_stimation_1,
                           within = fielder_stimation_2,
                           random = fielder_stimation_3,
                           fd = fielder_stimation_4)

# Print the third block of results
stargazer(fielder_models,
          no.space = TRUE,
          align = TRUE,
          type = "text",
          title = "Lanzadores Iniciales: Comparación de los modelos - Segundo refinamiento",
          column.labels = c("Pooling", "Within",
                            "Random effects","First-Differences"))
```

```
Lanzadores Iniciales: Comparación de los modelos - Segundo refinamiento
================================================================================
                                    Dependent variable:
                        ---------------------------------------------------
                         Pooling   Within   Random effects First-Differences
                           (1)       (2)         (3)              (4)
--------------------------------------------------------------------------------
Edad_t                  -0.008**   -0.020*     -0.009**        -0.016***
                         (0.004)   (0.012)     (0.004)          (0.004)
Anios_de_contrato_t      -0.013*   -0.017      -0.013*         -0.058***
                         (0.007)   (0.020)     (0.007)          (0.012)
team_num_t                0.002     0.004       0.002           0.002*
                         (0.001)   (0.002)     (0.001)          (0.001)
X_Control_2_t           -0.157**                -0.148**
                         (0.071)                 (0.071)
X_Control_t              0.091**                 0.084**
                         (0.041)                 (0.041)
X_Bateos_2_t                                                    0.0005**
                                                                (0.0002)
X_Bateos_2_t_1                                                 -0.0004***
                                                                (0.0001)
X_Bateos_t                                                      0.020***
                                                                 (0.002)
X_Carreras_ganadas_2_t                                         -0.001***
                                                                (0.0003)
X_Dominio_t_1           0.047***                0.043***        0.042***
                         (0.014)                 (0.014)          (0.009)
```

X_Inning_pitched_2_t				-0.001***
				(0.0001)
X_Losses_2_t_1				-0.003***
				(0.001)
X_ERA_t_1	-0.019***	-0.034***	-0.019***	-0.036***
	(0.006)	(0.011)	(0.006)	(0.006)
X_Carreras_t				-0.023***
				(0.003)
X_Comando_2_t_1				0.0004***
				(0.0001)
X_Comando_t				0.048***
				(0.006)
X_Comando_t_1				-0.046***
				(0.006)
X_Control_2_t_1				-0.098***
				(0.013)
X_Control_t_1				-0.053***
				(0.012)
X_Dominio_2_t				-0.151***
				(0.011)
X_Dominio_t				0.134***
				(0.020)
X_Dominio_2_t_1				-0.084***
				(0.011)
X_ERA_t	-0.013**		-0.012**	-0.046***
	(0.006)		(0.006)	(0.007)
X_Saves_2_t		-1.883***		-2.435***
		(0.656)		(0.439)
X_Saves_2_t_1	-0.194**	0.066***	-0.170**	
	(0.090)	(0.019)	(0.083)	
X_Saves_t_1	0.374**		0.332**	
	(0.159)		(0.145)	
X_Saves_t		1.447***		1.770***
		(0.465)		(0.295)
X_Strike_outs_2_t_1				0.001***
				(0.0001)
X_Strike_outs_t				0.005***
				(0.001)
X_Strike_outs_t_1				-0.005***
				(0.001)
X_WAR_2_t_1		-0.008**		-0.017***
		(0.003)		(0.002)
X_WHIP_2_t				0.081***
				(0.012)
X_Walks_2_t				0.001***
				(0.0002)
X_Walks_t				0.006***
				(0.002)
Constant	0.257**		0.275**	
	(0.123)		(0.132)	

Note: *p<0.1; **p<0.05; ***p<0.01

```r
# create an empty list to store the test results
test_results <- list()

# loop through every possible pair of models
for (i in 1:(length(fielder_end_models)-1)) {
  for (j in (i+1):length(fielder_end_models)) {
    # apply phtest to the pair of models
    test_result <- phtest(fielder_end_models[[i]], fielder_end_models[[j]])
    # add the test result to the list
    test_results[[paste0(names(fielder_end_models[i]), "_vs_", names(fielder_end_models[j]))]] <- test_
  }
}

# view the test results
test_results
```

```
$pooling_vs_within

    Hausman Test

data:  formula
chisq = 4.2929, df = 5, p-value = 0.5081
alternative hypothesis: one model is inconsistent


$pooling_vs_random

    Hausman Test

data:  formula
chisq = 4.8623, df = 10, p-value = 0.9002
alternative hypothesis: one model is inconsistent


$pooling_vs_fd

    Hausman Test

data:  formula
chisq = 9.4283, df = 6, p-value = 0.1509
alternative hypothesis: one model is inconsistent


$within_vs_random

    Hausman Test

data:  formula
chisq = 4.4388, df = 5, p-value = 0.4881
alternative hypothesis: one model is inconsistent


$within_vs_fd
```

```
    Hausman Test

data:  formula
chisq = 101.17, df = 7, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


$random_vs_fd

    Hausman Test

data:  formula
chisq = 9.501, df = 6, p-value = 0.1473
alternative hypothesis: one model is inconsistent
```

Cambio estructural para el 2020 - COVID-19

Estimaremos los mismos modelos refinados, pero omitiendo el año 2020 para evaluar si hay un cambio estructural.

Bateadores

Bateadores: Comparación de los modelos - COVID-19

	Dependent variable:			
	Pooling	Within	Random effects	First-Differences
	(1)	(2)	(3)	(4)
Edadt	-0.006**	-0.006	-0.006**	-0.011***
	(0.003)	(0.004)	(0.003)	(0.002)
Años contratot	-0.004	-0.039***	-0.007*	-0.050***
	(0.004)	(0.012)	(0.004)	(0.009)
Eqipot	0.001	0.001	0.001	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)
XTt-1	0.010*			
	(0.005)			
XBAt-1				0.003***
				(0.001)
XGSt-1				-0.002***
				(0.0004)
XOBP2t				-0.003***
				(0.001)
XWARt				-0.0005***
				(0.0001)
XWAR2t				-0.004**
				(0.002)
Intercepto				0.006***
				(0.001)
X_Porcentaje_On_base_plus_slugging_t_1				-0.056***

				(0.012)
X_Porcentaje_on_base_t_1				0.113***
				(0.012)
X_Porcentaje_on_base_2_t				0.063***
				(0.019)
X_Triples_t				-0.067***
				(0.010)
X_Triples_2_t				0.025***
				(0.005)
X_WAR_t	0.016**	0.035***	0.019***	0.015***
	(0.007)	(0.009)	(0.006)	(0.004)
X_WAR_t_1				0.008*
				(0.005)
X_WAR_2_t				0.010**
				(0.005)
X_Home_runs_t_1				-0.006***
				(0.002)
X_Runs_batted_in_t_1				0.004**
				(0.002)
Constant	0.187**		0.181**	
	(0.081)		(0.082)	

Note: *p<0.1; **p<0.05; ***p<0.01

Fildeadores

Lanzadores Iniciales: Comparación de los modelos - COVID-19

	Dependent variable:			
	Pooling	Within	Random effects	First-Differences
	(1)	(2)	(3)	(4)
Edadt	-0.008**	-0.020*	-0.009**	-0.016***
	(0.004)	(0.012)	(0.004)	(0.004)
Años contratot	-0.013*	-0.017	-0.013*	-0.058***
	(0.007)	(0.020)	(0.007)	(0.012)
Eqipot	0.002	0.004	0.002	0.002*
	(0.001)	(0.002)	(0.001)	(0.001)
XControl2t	-0.157**		-0.148**	
	(0.071)		(0.071)	
XControlt	0.091**		0.084**	
	(0.041)		(0.041)	
XDominiot-1				0.0005**
				(0.0002)
XHt				-0.0004***
				(0.0001)
XER2t				0.020***
				(0.002)
XERAt-1				-0.001***
				(0.0003)

XERAt	0.047***		0.043***	0.042***
	(0.014)		(0.014)	(0.009)
XSt-1				-0.001***
				(0.0001)
XS2t-1				-0.003***
				(0.001)
XSt	-0.019***	-0.034***	-0.019***	-0.036***
	(0.006)	(0.011)	(0.006)	(0.006)
XComando2t-1				-0.023***
				(0.003)
XComandot				0.0004***
				(0.0001)
XDominiot				0.048***
				(0.006)
XL2t-1				-0.046***
				(0.006)
XSO2t-1				-0.098***
				(0.013)
XSOt				-0.053***
				(0.012)
XBBt				-0.151***
				(0.011)
Intercepto				0.134***
				(0.020)
X_Dominio_2_t_1				-0.084***
				(0.011)
X_ERA_t	-0.013**		-0.012**	-0.046***
	(0.006)		(0.006)	(0.007)
X_Saves_2_t		-1.883***		-2.435***
		(0.656)		(0.439)
X_Saves_2_t_1	-0.194**	0.066***	-0.170**	
	(0.090)	(0.019)	(0.083)	
X_Saves_t_1	0.374**		0.332**	
	(0.159)		(0.145)	
X_Saves_t		1.447***		1.770***
		(0.465)		(0.295)
X_Strike_outs_2_t_1				0.001***
				(0.0001)
X_Strike_outs_t				0.005***
				(0.001)
X_Strike_outs_t_1				-0.005***
				(0.001)
X_WAR_2_t_1		-0.008**		-0.017***
		(0.003)		(0.002)
X_WHIP_2_t				0.081***
				(0.012)
X_Walks_2_t				0.001***
				(0.0002)
X_Walks_t				0.006***
				(0.002)
Constant	0.257**		0.275**	
	(0.123)		(0.132)	

```
Note:                                        *p<0.1; **p<0.05; ***p<0.01
```

Procedamos a realizar el test de Hausman para cada modelo

```
[1] "Bateadores: Pruebas de Hausman para el COVID-19"
```

```
[1] ""
```

```
[1] "Pooling"
```

```
    Hausman Test

data:  formula
chisq = 3.9513, df = 5, p-value = 0.5565
alternative hypothesis: one model is inconsistent
```

```
[1] "Within"
```

```
    Hausman Test

data:  formula
chisq = 3.0371, df = 4, p-value = 0.5516
alternative hypothesis: one model is inconsistent
```

```
[1] "Random effects"
```

```
    Hausman Test

data:  formula
chisq = 1.392, df = 4, p-value = 0.8456
alternative hypothesis: one model is inconsistent
```

```
[1] "First-Differences"
```

```
    Hausman Test

data:  formula
chisq = 15.506, df = 19, p-value = 0.6899
alternative hypothesis: one model is inconsistent
```

```
# List to store results
fielder_test_covid <- list()
model_names <- c("Pooling",
                 "Within",
                 "Random effects",
                 "First-Differences")

# Title:
print("Lanzadores iniciales: Pruebas de Hausman para el COVID-19")
```

```
[1] "Lanzadores iniciales: Pruebas de Hausman para el COVID-19"
```

```
print("")
```

```
[1] ""
```

```
# Loop for applying results
for (i in 1:4){
  fielder_test_covid[[i]] <- phtest(fielder_end_models[[i]],
                                    fielder_end_models_cov[[i]])
  print(model_names[[i]])
  print(fielder_test_covid[[i]])
}
```

```
[1] "Pooling"

    Hausman Test

data:  formula
chisq = 6.6745, df = 10, p-value = 0.7558
alternative hypothesis: one model is inconsistent

[1] "Within"

    Hausman Test

data:  formula
chisq = 2.5947, df = 8, p-value = 0.9572
alternative hypothesis: one model is inconsistent

[1] "Random effects"

    Hausman Test

data:  formula
chisq = 6.2746, df = 10, p-value = 0.7917
alternative hypothesis: one model is inconsistent

[1] "First-Differences"

    Hausman Test

data:  formula
chisq = 12.337, df = 30, p-value = 0.9982
alternative hypothesis: one model is inconsistent
```

Comparación entre periodos

Obtendremos los estimadores para los primeros dos años de observación para luego compararlos con los estimadores para el resto de años. Primero, aseguremos que los páneles estén ordenados por nombre y año de referencia

```r
# Sort dataframe by player name and year_ref
hitter_data <- hitter_data %>% arrange(Jugador, Anio_ref)
# Sort dataframe by player name and year_ref
starting_data <- starting_data %>% arrange(Jugador, Anio_ref)
```

Haremos las estimaciones con todos los modelos para obtener un análisis robusto

Primeros dos años

Pooling

Bateadores

```
Bateadores regulares: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                   -0.011**          -0.006
                         (0.005)         (0.004)
Años contratot           0.0003           -0.004
                         (0.010)         (0.026)
Eqipot                    0.001           0.003*
                         (0.001)         (0.002)
XABt                     -0.002           0.003
                         (0.001)         (0.002)
XABt-1                   -0.001           0.0002
                         (0.001)         (0.002)
Agentet                  0.320**          0.147
                         (0.145)         (0.151)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 291.74, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
```

```
                      (1)             (2)
-----------------------------------------------
Edadt               -0.011**         -0.007*
                     (0.005)         (0.004)
Años contratot       -0.001           -0.006
                     (0.011)         (0.025)
Eqipot               0.0004           0.003
                     (0.001)         (0.002)
XAB2t                -0.0003          0.001*
                    (0.0002)         (0.0005)
XAB2t-1              0.0002          -0.0004
                    (0.0002)         (0.0003)
Agentet              0.302**          0.178
                     (0.153)         (0.131)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 38.797, df = 5, p-value = 2.609e-07
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
===============================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt               -0.011**          -0.005
                     (0.005)         (0.004)
Años contratot       -0.001           -0.005
                     (0.010)         (0.026)
Eqipot                0.001           0.003*
                     (0.001)         (0.002)
XHt                 -0.004**          0.004
                     (0.002)         (0.004)
XHt-1                 0.001           0.001
                     (0.002)         (0.004)
Agentet              0.313**          0.136
                     (0.144)         (0.149)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 122.07, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                 -0.011**          -0.004
                       (0.005)         (0.003)
Años contratot        -0.003            0.001
                       (0.010)         (0.027)
Eqipot                 0.001            0.003
                       (0.001)         (0.002)
XH2t                  -0.038           -0.058
                       (0.033)         (0.054)
XH2t-1                 0.024            0.052
                       (0.034)         (0.050)
Agentet               0.293*            0.085
                       (0.157)         (0.124)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 18.388, df = 5, p-value = 0.002498
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                 -0.011**          -0.003
                       (0.005)         (0.004)
Años contratot        -0.004            0.003
                       (0.010)         (0.028)
Eqipot                 0.001            0.003
                       (0.001)         (0.002)
XBAt                  -0.054           -0.098
```

```
                    (0.041)         (0.093)
XBAt-1               0.031          -0.021
                    (0.031)         (0.032)
Agentet             0.296*           0.029
                    (0.156)         (0.141)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.2366, df = 5, p-value = 0.2839
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                     (1)             (2)
------------------------------------------------
Edadt              -0.011**          -0.005
                    (0.005)         (0.003)
Años contratot      -0.004           -0.014
                    (0.010)         (0.026)
Eqipot              0.0005           0.003
                    (0.001)         (0.002)
XBA2t               -0.003           0.017
                    (0.006)         (0.011)
XBA2t-1              0.003          0.015**
                    (0.004)         (0.007)
Agentet             0.316**          0.141
                    (0.147)         (0.142)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 51.721, df = 5, p-value = 6.155e-10
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
```

```
                --------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
-----------------------------------------------
Edadt               -0.011**          -0.004
                     (0.005)         (0.003)
Años contratot       -0.004           -0.009
                     (0.010)         (0.029)
Eqipot               0.0005           0.003
                     (0.001)         (0.002)
XDt                  -0.001           -0.003
                     (0.001)         (0.006)
XDt-1                0.0004          -0.002*
                     (0.001)         (0.001)
Agentet              0.320**          0.068
                     (0.147)         (0.138)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 23.4, df = 5, p-value = 0.000283
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
===============================================
                      Dependent variable:
                --------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
-----------------------------------------------
Edadt               -0.012**          -0.006
                     (0.005)         (0.004)
Años contratot       -0.001           -0.004
                     (0.010)         (0.027)
Eqipot                0.001           0.003
                     (0.001)         (0.002)
XD2t                 -0.003*          0.004
                     (0.002)         (0.004)
XD2t-1               -0.001          -0.0001
                     (0.002)         (0.003)
Agentet              0.325**          0.139
                     (0.145)         (0.156)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
```

```
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 104.15, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                   -0.011**          -0.004
                         (0.005)         (0.004)
Años contratot           -0.003          -0.0005
                         (0.010)         (0.027)
Eqipot                    0.001           0.003*
                         (0.001)         (0.002)
XHRt                     -0.033           -0.006
                         (0.023)         (0.038)
XHRt-1                    0.012           -0.026
                         (0.027)         (0.030)
Agentet                  0.301*           0.071
                         (0.157)         (0.133)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 14.838, df = 5, p-value = 0.01108
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                   -0.011**          -0.004
                         (0.005)         (0.003)
Años contratot           -0.004           0.002
                         (0.010)         (0.027)
```

```
Eqipot               0.001          0.003
                    (0.001)        (0.002)
XHR2t               -0.045          -0.078
                    (0.037)        (0.053)
XHR2t-1              0.023          0.042
                    (0.036)        (0.046)
Agentet             0.302*          0.082
                    (0.155)        (0.127)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 18.536, df = 5, p-value = 0.002345
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.010**         -0.003
                     (0.005)        (0.004)
Años contratot       -0.004          0.0005
                     (0.010)        (0.027)
Eqipot               0.0005          0.003
                     (0.001)        (0.002)
XGSt                 -0.061          -0.085
                     (0.038)        (0.072)
XGSt-1               0.024           -0.018
                     (0.037)        (0.042)
Agentet              0.289*          0.037
                     (0.151)        (0.139)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 20.184, df = 5, p-value = 0.001154
alternative hypothesis: one model is inconsistent
```

```
Bateadores regulares: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                   -0.011**         -0.006
                         (0.005)         (0.004)
Años contratot           -0.0005         -0.013
                         (0.010)         (0.029)
Eqipot                    0.001           0.003
                         (0.001)         (0.002)
XGS2t                   -0.006**          0.008
                         (0.003)         (0.005)
XGS2t-1                   0.001           0.003
                         (0.002)         (0.005)
Agentet                  0.316**          0.170
                         (0.145)         (0.142)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 85.854, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                   -0.011**         -0.004
                         (0.005)         (0.003)
Años contratot           -0.006          -0.001
                         (0.010)         (0.028)
Eqipot                   0.0001           0.003
                         (0.001)         (0.002)
XOPSt                    -0.019          -0.002
                         (0.013)         (0.041)
XOPSt-1                  0.021**          -0.001
                         (0.008)         (0.040)
Agentet                  0.310**          0.069
                         (0.146)         (0.138)
================================================
```

```
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 14.274, df = 5, p-value = 0.01396
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.011**          -0.005
                     (0.005)         (0.004)
Años contratot       -0.004           0.002
                     (0.010)         (0.024)
Eqipot               0.0005           0.004*
                     (0.001)         (0.002)
XOPS2t               -0.004           0.024
                     (0.006)         (0.024)
XOPS2t-1              0.001           0.014
                     (0.001)         (0.016)
Agentet              0.308**          0.097
                     (0.149)         (0.134)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 26.818, df = 5, p-value = 6.189e-05
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt              -0.012***        -0.007**
```

```
                    (0.005)         (0.003)
Años contratot      -0.008           -0.022
                    (0.010)         (0.026)
Eqipot               0.001           0.003*
                    (0.001)         (0.002)
XOBPt               0.020*          0.061***
                    (0.011)         (0.021)
XOBPt-1            0.028***          0.012
                    (0.011)         (0.023)
Agentet             0.372**         0.224**
                    (0.145)         (0.109)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 28.192, df = 5, p-value = 3.339e-05
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.012***         -0.004
                    (0.004)         (0.003)
Años contratot      -0.001           -0.022
                    (0.010)         (0.025)
Eqipot              0.0002           0.004*
                    (0.001)         (0.002)
XOBP2t               0.008          0.054**
                    (0.006)         (0.026)
XOBP2t-1            0.011*          0.008**
                    (0.006)         (0.004)
Agentet             0.353**          0.125
                    (0.143)         (0.124)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 43.473, df = 5, p-value = 2.963e-08
```

```
alternative hypothesis: one model is inconsistent
```

Starting pitcher

```
Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.010          -0.011
                          (0.008)         (0.009)
Años contratot            -0.005          -0.043
                          (0.021)         (0.027)
Eqipot                     0.003           0.007
                          (0.002)         (0.007)
XH2t                      -0.0003          0.0003
                         (0.0002)         (0.0003)
XH2t-1                    -0.0001         -0.0003
                         (0.0001)         (0.0003)
Agentet                    0.287           0.245
                          (0.272)         (0.178)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.3622, df = 5, p-value = 0.3733
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.011          -0.010
                          (0.008)         (0.008)
Años contratot            -0.015          -0.041
                          (0.020)         (0.031)
Eqipot                     0.003           0.005
                          (0.002)         (0.006)
XHt                       -0.002           0.001
                          (0.003)         (0.003)
```

```
XHt-1               0.0003          -0.002
                   (0.002)         (0.004)
Agentet             0.358           0.259
                   (0.264)         (0.163)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.9892, df = 5, p-value = 0.8506
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                     (1)             (2)
------------------------------------------------
Edadt               -0.012          -0.011
                   (0.009)         (0.009)
Años contratot      -0.016          -0.035
                   (0.020)         (0.031)
Eqipot               0.004           0.007
                   (0.002)         (0.007)
XR2t                0.00001         0.001**
                   (0.0004)        (0.0004)
XR2t-1              -0.0003         -0.0005
                   (0.0002)        (0.001)
Agentet              0.378           0.248
                   (0.278)         (0.180)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.2456, df = 5, p-value = 0.5146
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               -------------------------------
```

```
               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                -0.010           -0.010
                     (0.008)         (0.008)
Años contratot       -0.011           -0.037
                     (0.020)         (0.031)
Eqipot                0.003           0.005
                     (0.002)         (0.006)
XER2t                -0.005           0.005
                     (0.003)         (0.003)
XER2t-1              -0.0005          -0.002
                     (0.002)         (0.006)
Agentet               0.324           0.253
                     (0.264)         (0.180)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.3969, df = 5, p-value = 0.1357
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
=================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                -0.010           -0.010
                     (0.008)         (0.007)
Años contratot       -0.019           -0.041
                     (0.019)         (0.033)
Eqipot                0.003           0.007
                     (0.002)         (0.006)
XERt                 -0.018           -0.017
                     (0.012)         (0.017)
XERt-1              -0.028**          -0.004
                     (0.012)         (0.016)
Agentet               0.311           0.222
                     (0.246)         (0.164)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 3.526, df = 5, p-value = 0.6195
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.011           -0.010
                         (0.008)         (0.008)
Años contratot           -0.012           -0.037
                         (0.020)         (0.031)
Eqipot                    0.003           0.005
                         (0.002)         (0.006)
XRt                      -0.004           0.005
                         (0.003)         (0.003)
XRt-1                    -0.001           -0.002
                         (0.003)         (0.006)
Agentet                   0.342           0.255
                         (0.263)         (0.178)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 7.7693, df = 5, p-value = 0.1694
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.011           -0.005
                         (0.009)         (0.007)
Años contratot           -0.022          -0.062*
                         (0.019)         (0.033)
Eqipot                    0.003           0.005
```

```
                    (0.002)         (0.005)
XComando2t           0.007         -0.064***
                    (0.009)         (0.020)
XComando2t-1      -0.00001**         0.027
                    (0.00000)       (0.017)
Agentet              0.361           0.100
                    (0.265)         (0.178)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 15.214, df = 5, p-value = 0.009487
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.011           -0.007
                    (0.009)         (0.008)
Años contratot      -0.018           -0.023
                    (0.019)         (0.031)
Eqipot               0.003           0.004
                    (0.002)         (0.007)
XComandot            0.006           -0.010
                    (0.019)         (0.046)
XComandot-1         -0.001*          -0.037
                    (0.001)         (0.046)
Agentet              0.361           0.119
                    (0.263)         (0.224)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.4502, df = 5, p-value = 0.6309
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
```

```
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.014*          -0.012
                       (0.008)         (0.007)
Años contratot         -0.014           -0.036
                       (0.019)         (0.033)
Eqipot                 0.004**          0.009
                       (0.002)         (0.007)
XControl2t             -0.146*          0.325*
                       (0.081)         (0.184)
XControl2t-1          -0.142***         -0.396
                       (0.035)         (0.310)
Agentet                 0.385           0.240
                       (0.254)         (0.159)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 14.551, df = 5, p-value = 0.01246
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.011           -0.011
                       (0.007)         (0.007)
Años contratot         -0.022           -0.032
                       (0.020)         (0.033)
Eqipot                  0.002           0.010
                       (0.002)         (0.006)
XControlt               0.059          0.194***
                       (0.055)         (0.061)
XControlt-1           -0.109***        -0.205**
                       (0.040)         (0.083)
Agentet                 0.343           0.215
                       (0.239)         (0.203)
================================================
================================================
```

```
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 12, df = 5, p-value = 0.03479
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.009          -0.008
                          (0.008)         (0.005)
Años contratot            -0.022          -0.032
                          (0.019)         (0.031)
Eqipot                     0.003           0.008
                          (0.002)         (0.007)
XDominio2t                 0.027          -0.069
                          (0.046)         (0.065)
XDominio2t-1             0.084***          0.072
                          (0.031)         (0.070)
Agentet                    0.312           0.105
                          (0.245)         (0.149)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.7603, df = 5, p-value = 0.3302
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.007          -0.010
                          (0.008)         (0.007)
```

```
Años contratot      -0.021           -0.038
                    (0.019)         (0.028)
Eqipot               0.002           0.007
                    (0.002)         (0.007)
XDominiot            0.007           -0.043
                    (0.033)         (0.117)
XDominiot-1        0.090***          0.058
                    (0.029)         (0.109)
Agentet              0.266           0.227
                    (0.246)         (0.161)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.70579, df = 5, p-value = 0.9826
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.010           -0.011
                    (0.008)         (0.009)
Años contratot      -0.006           -0.039
                    (0.021)         (0.038)
Eqipot               0.004           0.007
                    (0.002)         (0.007)
XERA2t              -0.0003          0.0003
                   (0.0002)         (0.0003)
XERA2t-1            0.0001          -0.0001
                   (0.0001)         (0.0004)
Agentet              0.284           0.263
                    (0.271)         (0.192)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.2359, df = 5, p-value = 0.3878
alternative hypothesis: one model is inconsistent
```

```
Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.011           -0.010
                          (0.009)         (0.007)
Años contratot            -0.014           -0.037
                          (0.021)         (0.030)
Eqipot                     0.003           0.005
                          (0.002)         (0.006)
XERAt                     -0.002           0.002
                          (0.002)         (0.003)
XERAt-1                    0.001           -0.004
                          (0.002)         (0.004)
Agentet                    0.348           0.257
                          (0.278)         (0.159)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.246, df = 5, p-value = 0.283
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.011           -0.012
                          (0.008)         (0.008)
Años contratot            -0.017           -0.040
                          (0.017)         (0.027)
Eqipot                     0.003           0.007
                          (0.002)         (0.006)
XIP2t                     -0.004*          0.009
                          (0.002)         (0.006)
XIP2t-1                    0.001           -0.004
                          (0.002)         (0.005)
Agentet                    0.343           0.296
```

```
                    (0.257)         (0.194)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.1094, df = 5, p-value = 0.1503
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.013           -0.009
                     (0.009)         (0.010)
Años contratot       -0.018           -0.035
                     (0.020)         (0.034)
Eqipot                0.004           0.006
                     (0.002)         (0.006)
XIPt                  0.241           -0.050
                     (0.154)         (0.129)
XIPt-1              0.038***          -0.218
                     (0.014)         (0.513)
Agentet               0.419           0.198
                     (0.275)         (0.285)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.7347, df = 5, p-value = 0.2411
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                      Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
```

```
-----------------------------------------------
Edadt               -0.014           -0.009
                    (0.008)         (0.010)
Años contratot      -0.018           -0.034
                    (0.020)         (0.034)
Eqipot              0.004*           0.006
                    (0.002)         (0.006)
XL2t                 0.121           -0.035
                    (0.102)         (0.086)
XL2t-1              0.097**          -0.118
                    (0.044)         (0.212)
Agentet              0.425           0.176
                    (0.272)         (0.293)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.6711, df = 5, p-value = 0.5977
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
===============================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt               -0.012           -0.010
                    (0.008)         (0.009)
Años contratot      -0.020           -0.045
                    (0.018)         (0.040)
Eqipot               0.004           0.007
                    (0.002)         (0.007)
XDLt                -0.0002          0.0003
                   (0.0001)         (0.0003)
XLt-1              0.0004**          0.0001
                   (0.0002)         (0.0003)
Agentet              0.383           0.246
                    (0.250)         (0.190)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 5.469, df = 5, p-value = 0.3614
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.012           -0.011
                     (0.008)         (0.008)
Años contratot       -0.021           -0.040
                     (0.020)         (0.039)
Eqipot                0.004           0.006
                     (0.002)         (0.007)
XS2t                -0.00001          0.001
                     (0.002)         (0.003)
XS2t-1                0.001          -0.0004
                     (0.002)         (0.004)
Agentet               0.386           0.265
                     (0.265)         (0.170)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.0286, df = 5, p-value = 0.8452
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.013           -0.009
                     (0.008)         (0.007)
Años contratot       -0.022           0.014
                     (0.019)         (0.050)
Eqipot                0.003           0.007
                     (0.002)         (0.007)
XSt                  0.0003           0.028*
                     (0.006)         (0.014)
```

```
XSt-1               0.011**         -0.015*
                    (0.005)         (0.008)
Agentet             0.440*           0.150
                    (0.260)         (0.141)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 25.4, df = 5, p-value = 0.0001166
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.009           -0.009
                    (0.007)         (0.006)
Años contratot      -0.020           -0.038
                    (0.021)         (0.034)
Eqipot               0.003           0.007
                    (0.002)         (0.008)
XSO2t               -0.016           0.017
                    (0.019)         (0.027)
XSO2t-1            -0.054***         -0.043
                    (0.017)         (0.042)
Agentet              0.249           0.194
                    (0.240)         (0.149)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.6179, df = 5, p-value = 0.4643
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                     Dependent variable:
               -------------------------------
```

```
               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                -0.011           -0.010
                     (0.007)         (0.007)
Años contratot       -0.026           -0.042
                     (0.021)         (0.031)
Eqipot               0.004*           0.007
                     (0.002)         (0.008)
XSOt                 -0.011           -0.012
                     (0.018)         (0.033)
XSOt-1              -0.051***         -0.035
                     (0.018)         (0.032)
Agentet               0.356           0.231
                     (0.241)         (0.164)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.2259, df = 5, p-value = 0.8171
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
=================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                -0.012           -0.010
                     (0.008)         (0.008)
Años contratot       -0.016           -0.042
                     (0.019)         (0.034)
Eqipot                0.004           0.008
                     (0.002)         (0.006)
XWAR2t               -0.0004          0.001
                    (0.0005)         (0.001)
XWAR2t-1             0.0001           0.0004
                    (0.0005)         (0.001)
Agentet               0.379           0.235
                     (0.264)         (0.188)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 4.2365, df = 5, p-value = 0.5159
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.013          -0.012
                         (0.009)         (0.008)
Años contratot           -0.017          -0.054
                         (0.021)         (0.042)
Eqipot                    0.004           0.008
                         (0.002)         (0.006)
XWARt                    -0.0002          0.009*
                         (0.005)         (0.005)
XWARt-1                  -0.002           0.003
                         (0.004)         (0.007)
Agentet                   0.399           0.277
                         (0.283)         (0.180)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.8494, df = 5, p-value = 0.4345
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Pooling)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.010          -0.011
                         (0.009)         (0.009)
Años contratot           -0.007          -0.043
                         (0.021)         (0.037)
Eqipot                   0.004*           0.006
```

```
                    (0.002)         (0.007)
XWHIP2t             -0.013           0.011
                    (0.009)         (0.011)
XWHIP2t-1            0.001           -0.006
                    (0.008)         (0.016)
Agentet              0.295           0.268
                    (0.281)         (0.181)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.4521, df = 5, p-value = 0.3632
alternative hypothesis: one model is inconsistent
```

Efectos fijos

Bateadores

```
Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 0.011         -0.006***
                     (0.013)         (0.002)
Años contratot       -0.019         -0.054***
                     (0.012)         (0.006)
Eqipot                0.001           0.004
                     (0.001)         (0.003)
XABt                  0.001           0.003
                     (0.001)         (0.003)
XABt-1                0.001           0.002
                     (0.001)         (0.002)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.5754, df = 5, p-value = 0.9042
alternative hypothesis: one model is inconsistent
```

```
Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.007         -0.007***
                           (0.012)         (0.002)
Años contratot             -0.018         -0.052***
                           (0.012)         (0.006)
Eqipot                      0.001           0.004
                           (0.001)         (0.003)
XAB2t                      -0.0001          0.001
                          (0.0001)         (0.0005)
XAB2t-1                    0.00002         -0.00004
                          (0.0001)         (0.001)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.5791, df = 5, p-value = 0.7645
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.008         -0.007***
                           (0.013)         (0.002)
Años contratot             -0.019         -0.055***
                           (0.012)         (0.006)
Eqipot                      0.001           0.005*
                           (0.001)         (0.002)
XHt                        -0.0002          0.005
                           (0.001)         (0.005)
XHt-1                       0.001           0.002
                           (0.002)         (0.005)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
```

```
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.3761, df = 5, p-value = 0.795
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                ------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                  0.007         -0.007***
                      (0.011)         (0.001)
Años contratot        -0.021         -0.049***
                      (0.013)         (0.004)
Eqipot                0.002*          0.005**
                      (0.001)         (0.002)
XH2t                  0.050*           -0.040
                      (0.027)         (0.066)
XH2t-1                0.071**         0.059**
                      (0.035)         (0.029)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 7.3955, df = 5, p-value = 0.1928
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                ------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                  0.007         -0.007***
                      (0.011)         (0.002)
Años contratot        -0.018         -0.049***
                      (0.012)         (0.010)
Eqipot                 0.001          0.005**
                      (0.001)         (0.002)
```

```
XBAt                -0.020           -0.028
                    (0.070)         (0.111)
XBAt-1               0.041          0.064**
                    (0.032)         (0.031)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.77608, df = 5, p-value = 0.9785
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 0.007         -0.007***
                     (0.014)         (0.002)
Años contratot       -0.020         -0.058***
                     (0.012)         (0.007)
Eqipot                0.001          0.004**
                     (0.001)         (0.002)
XBA2t                 0.003          0.024**
                     (0.006)         (0.009)
XBA2t-1               0.002           0.016
                     (0.005)         (0.014)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.0269, df = 5, p-value = 0.4126
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
```

```
                      (1)             (2)
-----------------------------------------------
Edadt                 0.009         -0.007***
                     (0.012)         (0.002)
Años contratot       -0.018         -0.052***
                     (0.014)         (0.008)
Eqipot                0.001          0.005**
                     (0.001)         (0.002)
XDt                  -0.0005          0.006*
                     (0.001)         (0.003)
XDt-1                 0.001           0.007
                     (0.001)         (0.004)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.0863, df = 5, p-value = 0.6867
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
===============================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt                 0.011         -0.006***
                     (0.013)         (0.002)
Años contratot       -0.019         -0.058***
                     (0.012)         (0.008)
Eqipot                0.001           0.005*
                     (0.001)         (0.003)
XD2t                  0.002           0.006
                     (0.002)         (0.007)
XD2t-1                0.002           0.004
                     (0.002)         (0.004)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.2255, df = 5, p-value = 0.9988
alternative hypothesis: one model is inconsistent
```

```
Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.007         -0.007***
                           (0.011)         (0.002)
Años contratot             -0.023*         -0.050***
                           (0.013)         (0.004)
Eqipot                      0.002          0.005***
                           (0.001)         (0.002)
XHRt                        0.018           0.007
                           (0.013)         (0.044)
XHRt-1                     0.057*          -0.030**
                           (0.031)         (0.012)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 42.17, df = 5, p-value = 5.443e-08
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.008         -0.007***
                           (0.011)         (0.001)
Años contratot             -0.023*         -0.050***
                           (0.013)         (0.006)
Eqipot                      0.002          0.005***
                           (0.001)         (0.002)
XHR2t                       0.061           -0.022
                           (0.050)         (0.080)
XHR2t-1                    0.099**          0.012
                           (0.044)         (0.043)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
```

```
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 24.867, df = 5, p-value = 0.0001478
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.009         -0.006***
                      (0.011)         (0.002)
Años contratot        -0.022         -0.049***
                      (0.014)         (0.006)
Eqipot                0.002*          0.005**
                      (0.001)         (0.002)
XGSt                  0.158**          -0.058
                      (0.075)         (0.091)
XGSt-1                 0.024           0.079*
                      (0.033)         (0.046)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 16.947, df = 5, p-value = 0.004601
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.008         -0.007***
                      (0.012)         (0.002)
Años contratot        -0.018         -0.064***
                      (0.012)         (0.010)
Eqipot                 0.001           0.005
```

```
                   (0.001)         (0.003)
XGS2t              -0.001           0.006
                   (0.002)         (0.008)
XGS2t-1             0.003           0.006
                   (0.002)         (0.006)
================================================
================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.2705, df = 5, p-value = 0.8106
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                     (1)             (2)
------------------------------------------------
Edadt                0.006         -0.010***
                    (0.012)         (0.003)
Años contratot      -0.018         -0.066***
                    (0.012)         (0.012)
Eqipot               0.001           0.003*
                    (0.001)         (0.002)
XOPSt                0.001           -0.030
                    (0.019)         (0.035)
XOPSt-1              0.005          0.049**
                    (0.019)         (0.024)
================================================
================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 9.6581, df = 5, p-value = 0.08552
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                     Dependent variable:
               -------------------------------
```

```
               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                  0.006         -0.010***
                      (0.012)         (0.002)
Años contratot        -0.017           0.001
                      (0.012)         (0.014)
Eqipot                 0.001          0.005***
                      (0.001)         (0.001)
XOPS2t                 0.002          0.097***
                      (0.006)         (0.020)
XOPS2t-1               0.004          0.030***
                      (0.007)         (0.004)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 43.387, df = 5, p-value = 3.085e-08
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
=================================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                  0.003         -0.008***
                      (0.011)         (0.001)
Años contratot        -0.024*         -0.060***
                      (0.013)         (0.007)
Eqipot                 0.001          0.006***
                      (0.001)         (0.002)
XOBPt                 0.020*          0.048***
                      (0.010)         (0.014)
XOBPt-1                0.009           -0.004
                      (0.013)         (0.016)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.1343, df = 5, p-value = 0.5302
```

```
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.005          -0.007**
                           (0.010)         (0.003)
Años contratot             -0.020         -0.063***
                           (0.015)         (0.008)
Eqipot                      0.001          0.005**
                           (0.001)         (0.002)
XOBP2t                      0.004          0.051***
                           (0.007)         (0.018)
XOBP2t-1                    0.008          -0.038*
                           (0.009)         (0.021)
================================================
================================================
Note:                      *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.99, df = 5, p-value = 0.03493
alternative hypothesis: one model is inconsistent
```

Starting pitcher

```
Lanzadores iniciales: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                      -0.004          0.108**
                           (0.022)         (0.042)
Años contratot              0.001          0.140**
                           (0.008)         (0.056)
Eqipot                     0.002*           0.003
                           (0.001)         (0.004)
XH2t                      -0.00004          0.0002
                          (0.0001)         (0.0002)
XH2t-1                     0.00000         -0.0001
                          (0.0001)         (0.0002)
```

```
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.5334, df = 5, p-value = 0.9092
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.005          0.090**
                     (0.017)         (0.040)
Años contratot       -0.020*          0.116*
                     (0.011)         (0.058)
Eqipot               0.003**          0.006*
                     (0.001)         (0.003)
XHt                  0.006*           0.002
                     (0.003)         (0.001)
XHt-1                -0.0001         0.005***
                     (0.002)         (0.001)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.0464, df = 5, p-value = 0.6928
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.002          0.107**
                     (0.020)         (0.046)
```

```
Años contratot      -0.001          0.143**
                    (0.008)         (0.062)
Eqipot              0.002*           0.002
                    (0.001)         (0.005)
XR2t                -0.0002          0.0005
                   (0.0002)         (0.0003)
XR2t-1              0.0002          -0.0003
                   (0.0002)         (0.0004)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 61.753, df = 5, p-value = 5.275e-12
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 0.002           0.102*
                     (0.021)         (0.050)
Años contratot      -0.002           0.136*
                     (0.008)         (0.069)
Eqipot                0.002           0.005
                     (0.001)         (0.004)
XER2t                 0.001           0.002
                     (0.002)         (0.003)
XER2t-1               0.003           0.005
                     (0.002)         (0.004)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.936, df = 5, p-value = 0.5587
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
```

```
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
-------------------------------------------------
Edadt                  -0.002          0.127***
                       (0.017)         (0.036)
Años contratot          0.008          0.160***
                       (0.010)         (0.050)
Eqipot                  0.001           0.004*
                       (0.001)         (0.002)
XERt                   0.020*          -0.025*
                       (0.011)         (0.013)
XERt-1                 -0.012           0.004
                       (0.009)         (0.004)
=================================================
=================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 23.981, df = 5, p-value = 0.000219
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
=================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
-------------------------------------------------
Edadt                   0.003           0.095*
                       (0.020)         (0.051)
Años contratot         -0.008           0.124*
                       (0.010)         (0.068)
Eqipot                  0.002           0.003
                       (0.001)         (0.004)
XRt                     0.003           0.002
                       (0.002)         (0.002)
XRt-1                   0.003           0.002
                       (0.002)         (0.004)
=================================================
=================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 5.0658, df = 5, p-value = 0.4079
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.005           0.103*
                       (0.022)         (0.057)
Años contratot         -0.0001          0.112
                       (0.008)         (0.091)
Eqipot                 0.002*           0.003
                       (0.001)         (0.004)
XComando2t             -0.003           -0.016
                       (0.007)         (0.023)
XComando2t-1           0.00000          0.011
                      (0.00000)        (0.011)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.1623, df = 5, p-value = 0.3964
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.001          0.115**
                       (0.022)         (0.042)
Años contratot         -0.007          0.144**
                       (0.006)         (0.054)
Eqipot                  0.002           0.004
                       (0.001)         (0.006)
XComandot               0.017          -0.036**
                       (0.028)         (0.015)
XComandot-1            0.0003           0.001
```

```
                   (0.0003)         (0.046)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.733, df = 5, p-value = 0.2413
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.003          0.102***
                     (0.020)         (0.027)
Años contratot        0.001          0.134***
                     (0.010)         (0.039)
Eqipot               0.002**          0.005*
                     (0.001)         (0.003)
XControl2t           -0.073          0.267***
                     (0.061)         (0.057)
XControl2t-1         -0.044*        -0.457***
                     (0.023)         (0.041)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 569.39, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.001          0.058**
```

```
                   (0.018)         (0.023)
Años contratot     -0.003          0.091**
                   (0.010)         (0.031)
Eqipot             0.002*          0.010***
                   (0.001)         (0.003)
XControlt          -0.018           -0.014
                   (0.041)         (0.047)
XControlt-1        -0.065         -0.260***
                   (0.049)         (0.044)
================================================
================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.67473, df = 5, p-value = 0.9843
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt              -0.003           0.016
                   (0.018)         (0.017)
Años contratot      0.004           0.009
                   (0.010)         (0.022)
Eqipot             0.003*           -0.001
                   (0.001)         (0.001)
XDominio2t         -0.020           0.013*
                   (0.037)         (0.007)
XDominio2t-1       0.028*         -0.135***
                   (0.015)         (0.011)
================================================
================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 146.83, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
```

```
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.005          -0.015**
                       (0.019)         (0.005)
Años contratot         -0.001          -0.020**
                       (0.010)         (0.007)
Eqipot                 0.002*           0.002*
                       (0.001)         (0.001)
XDominiot               0.002          -0.064***
                       (0.016)         (0.020)
XDominiot-1             0.017          -0.122***
                       (0.020)         (0.013)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.189, df = 5, p-value = 0.004155
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.003           0.107*
                       (0.021)         (0.051)
Años contratot          0.001           0.123
                       (0.008)         (0.070)
Eqipot                 0.002*           0.005
                       (0.001)         (0.004)
XERA2t                 -0.0001          0.0002
                      (0.0001)         (0.0001)
XERA2t-1               0.0001           0.0002
                      (0.0001)         (0.0001)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 2.8544, df = 5, p-value = 0.7224
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                       Dependent variable:
                   -----------------------------

                   Primeros dos años Años restantes
                          (1)             (2)
------------------------------------------------
Edadt                   -0.0002          0.123*
                        (0.019)         (0.057)
Años contratot           0.002           0.150*
                        (0.011)         (0.076)
Eqipot                  0.002*           0.005
                        (0.001)         (0.004)
XERAt                   -0.001           0.002*
                        (0.001)         (0.001)
XERAt-1                 0.002*           0.003
                        (0.001)         (0.002)
================================================
================================================
Note:                   *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 66.645, df = 5, p-value = 5.106e-13
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                       Dependent variable:
                   -----------------------------

                   Primeros dos años Años restantes
                          (1)             (2)
------------------------------------------------
Edadt                   -0.003           0.111*
                        (0.020)         (0.052)
Años contratot          -0.001           0.143*
                        (0.009)         (0.075)
Eqipot                  0.002*           0.003
                        (0.001)         (0.004)
XIP2t                    0.001           0.001
                        (0.001)         (0.004)
```

```
XIP2t-1             0.0004           -0.002
                    (0.001)         (0.004)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.931, df = 5, p-value = 0.03574
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.004          0.105**
                     (0.020)         (0.047)
Años contratot       -0.001           0.132*
                     (0.009)         (0.065)
Eqipot               0.002*           0.002
                     (0.001)         (0.003)
XIPt                0.301***         0.067***
                     (0.005)         (0.003)
XIPt-1                0.014          0.236***
                     (0.018)         (0.056)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 15.505, df = 5, p-value = 0.00841
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
```

```
Edadt               -0.004          0.104**
                    (0.020)         (0.047)
Años contratot      -0.001           0.131*
                    (0.009)         (0.066)
Eqipot              0.002*           0.002
                    (0.001)         (0.003)
XL2t               0.191***         0.042***
                    (0.021)         (0.005)
XL2t-1               0.017           0.066
                    (0.039)         (0.045)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.197, df = 5, p-value = 0.00414
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.001           0.108*
                    (0.019)         (0.053)
Años contratot       0.006           0.127
                    (0.012)         (0.074)
Eqipot              0.002*           0.004
                    (0.001)         (0.003)
XDLt                -0.0001         0.0002*
                   (0.0001)         (0.0001)
XLt-1              -0.00004          0.0002
                   (0.0001)         (0.0001)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.555, df = 5, p-value = 0.00356
alternative hypothesis: one model is inconsistent
```

```
Lanzadores iniciales: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.003           0.121*
                          (0.019)         (0.056)
Años contratot            -0.009           0.138*
                          (0.012)         (0.073)
Eqipot                    0.002*           0.005
                          (0.001)         (0.004)
XS2t                       0.002          0.002**
                          (0.001)         (0.001)
XS2t-1                     0.002          0.003**
                          (0.001)         (0.001)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.6217, df = 5, p-value = 0.3448
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.003           0.101*
                          (0.019)         (0.051)
Años contratot             0.001           0.148
                          (0.010)         (0.085)
Eqipot                    0.002*           0.001
                          (0.001)         (0.002)
XSt                       -0.003          0.046***
                          (0.003)         (0.010)
XSt-1                     -0.001          -0.009**
                          (0.002)         (0.004)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 13.086, df = 5, p-value = 0.02259
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                       Dependent variable:
                   -----------------------------

                   Primeros dos años Años restantes
                          (1)             (2)
------------------------------------------------
Edadt                    0.007          0.120***
                        (0.018)         (0.035)
Años contratot           0.008          0.153***
                        (0.010)         (0.048)
Eqipot                  0.002*           0.004
                        (0.001)         (0.003)
XSO2t                    0.013           -0.005
                        (0.015)         (0.048)
XSO2t-1                 -0.030*          -0.014
                        (0.016)         (0.022)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 9.2912, df = 5, p-value = 0.098
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                       Dependent variable:
                   -----------------------------

                   Primeros dos años Años restantes
                          (1)             (2)
------------------------------------------------
Edadt                    0.003          0.111**
                        (0.018)         (0.037)
Años contratot           0.003          0.140**
                        (0.008)         (0.052)
Eqipot                   0.002           0.003
                        (0.001)         (0.003)
XSOt                     0.005           -0.005
```

```
                   (0.021)         (0.040)
XSOt-1             -0.047*          -0.005
                   (0.025)         (0.016)
================================================
================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 14.55, df = 5, p-value = 0.01247
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               0.0003           0.099*
                    (0.018)         (0.051)
Años contratot      -0.001           0.126*
                    (0.009)         (0.070)
Eqipot              0.002*           0.002
                    (0.001)         (0.006)
XWAR2t               0.001           0.0005
                    (0.0004)        (0.001)
XWAR2t-1             0.001          -0.0002
                    (0.0003)        (0.001)
================================================
================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.659, df = 5, p-value = 0.003405
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
================================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
```

```
-----------------------------------------------
Edadt                0.003           0.094*
                    (0.019)         (0.049)
Años contratot       0.001           0.104
                    (0.012)         (0.066)
Eqipot               0.001           0.007
                    (0.001)         (0.004)
XWARt                0.005           0.002
                    (0.003)         (0.004)
XWARt-1             0.006*          0.009***
                    (0.003)         (0.002)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 22.669, df = 5, p-value = 0.0003904
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Within)
===============================================
                      Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt               -0.003           0.123*
                    (0.020)         (0.058)
Años contratot       0.003           0.141*
                    (0.012)         (0.075)
Eqipot              0.002*           0.005
                    (0.001)         (0.004)
XWHIP2t             -0.004          0.009***
                    (0.006)         (0.002)
XWHIP2t-1            0.001           0.008
                    (0.005)         (0.007)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.3385, df = 5, p-value = 0.1385
alternative hypothesis: one model is inconsistent
```

Efectos aleatorios

Bateadores

```
t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.23298165  0.15218253  1.5309   0.1270
Edad_t              -0.00813961  0.00514685 -1.5815   0.1150
Anios_de_contrato_t -0.01206878  0.01080499 -1.1170   0.2650
team_num_t           0.00067624  0.00091388  0.7400   0.4600
X_At_bats_t         -0.00042638  0.00080174 -0.5318   0.5953
X_At_bats_t_1       -0.00020215  0.00085886 -0.2354   0.8141

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.008         -0.008***
                     (0.005)         (0.003)
Años contratot       -0.012           -0.015
                     (0.011)         (0.025)
Eqipot                0.001           0.003*
                     (0.001)         (0.002)
XABt                 -0.0004          0.003*
                     (0.001)         (0.002)
XABt-1               -0.0002          0.0003
                     (0.001)         (0.002)
Agentet               0.233          0.251**
                     (0.152)         (0.116)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.713, df = 5, p-value = 0.03893
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          2.0874e-01  1.4596e-01  1.4300   0.1539
Edad_t              -7.4153e-03  4.9172e-03 -1.5080   0.1328
```

```
Anios_de_contrato_t -1.1520e-02  1.0859e-02 -1.0609   0.2897
team_num_t           5.9238e-04  9.1027e-04  0.6508   0.5158
X_Bateos_2_t        -1.9080e-04  1.2966e-04 -1.4715   0.1424
X_Bateos_2_t_1       9.0507e-05  8.2322e-05  1.0994   0.2726

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
              --------------------------------

              Primeros dos años Años restantes
                     (1)             (2)
------------------------------------------------
Edadt                -0.007         -0.009***
                     (0.005)         (0.003)
Años contratot       -0.012           -0.015
                     (0.011)         (0.024)
Eqipot                0.001           0.003*
                     (0.001)         (0.002)
XAB2t                -0.0002         0.001**
                    (0.0001)         (0.0004)
XAB2t-1              0.0001          -0.0004
                    (0.0001)         (0.0003)
Agentet               0.209          0.278**
                     (0.146)         (0.107)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 10.299, df = 5, p-value = 0.06719
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.22586645  0.14642803  1.5425  0.12417
Edad_t              -0.00797190  0.00499472 -1.5961  0.11169
Anios_de_contrato_t -0.01171523  0.01088329 -1.0764  0.28273
team_num_t           0.00076325  0.00087588  0.8714  0.38433
X_Bateos_t          -0.00217031  0.00125416 -1.7305  0.08473 .
X_Bateos_t_1         0.00011938  0.00123219  0.0969  0.92290
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[1] "Remaining years:"
```

```
Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.008         -0.008***
                         (0.005)         (0.003)
Años contratot           -0.012           -0.016
                         (0.011)         (0.026)
Eqipot                    0.001          0.003**
                         (0.001)         (0.002)
XHt                      -0.002*          0.006
                         (0.001)         (0.004)
XHt-1                    0.0001           0.001
                         (0.001)         (0.004)
Agentet                   0.226          0.251**
                         (0.146)         (0.112)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 10.047, df = 5, p-value = 0.07392
alternative hypothesis: one model is inconsistent


t test of coefficients:

                          Estimate  Std. Error t value Pr(>|t|)
(Intercept)            0.19959126  0.15026720  1.3282  0.18526
Edad_t                -0.00743447  0.00506452 -1.4680  0.14333
Anios_de_contrato_t   -0.01282847  0.01055348 -1.2156  0.22525
team_num_t             0.00083052  0.00091388  0.9088  0.36431
X_Bateos_promedio_t   -0.01259034  0.02230496 -0.5645  0.57293
X_Bateos_promedio_t_1  0.04419900  0.02574526  1.7168  0.08721 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
```

```
-----------------------------------------------
Edadt               -0.007         -0.008***
                    (0.005)         (0.003)
Años contratot      -0.013          -0.009
                    (0.011)         (0.026)
Eqipot               0.001          0.004*
                    (0.001)         (0.002)
XH2t                -0.013          -0.045
                    (0.022)         (0.056)
XH2t-1              0.044*          0.051
                    (0.026)         (0.040)
Agentet              0.200          0.236**
                    (0.150)         (0.103)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.1669, df = 5, p-value = 0.6743
alternative hypothesis: one model is inconsistent


t test of coefficients:

                          Estimate  Std. Error t value Pr(>|t|)
(Intercept)             0.19395369  0.15121231  1.2827   0.2008
Edad_t                 -0.00698411  0.00509814 -1.3699   0.1719
Anios_de_contrato_t    -0.01216901  0.01040435 -1.1696   0.2432
team_num_t              0.00057337  0.00088821  0.6455   0.5191
X_Bateos_promedio_2_t  -0.04677970  0.03727052 -1.2551   0.2106
X_Bateos_promedio_2_t_1 0.03977767  0.02564118  1.5513   0.1220

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
===============================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt               -0.007         -0.007***
                    (0.005)         (0.003)
Años contratot      -0.012          -0.007
                    (0.010)         (0.028)
Eqipot               0.001          0.004*
                    (0.001)         (0.002)
XBAt                -0.047          -0.083
                    (0.037)         (0.088)
```

```
XBAt-1               0.040           -0.006
                    (0.026)         (0.034)
Agentet              0.194           0.195*
                    (0.151)         (0.111)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.09251, df = 5, p-value = 0.9999
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.21650421  0.14983908  1.4449   0.1497
Edad_t              -0.00756270  0.00510894 -1.4803   0.1400
Anios_de_contrato_t -0.01335935  0.01079912 -1.2371   0.2172
team_num_t           0.00060141  0.00088033  0.6832   0.4951
X_Home_runs_t        0.00107807  0.00487178  0.2213   0.8250
X_Home_runs_t_1      0.00068088  0.00314656  0.2164   0.8289

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.008         -0.007***
                    (0.005)         (0.003)
Años contratot       -0.013           -0.025
                    (0.011)         (0.025)
Eqipot               0.001           0.003*
                    (0.001)         (0.002)
XBA2t                0.001           0.021**
                    (0.005)         (0.010)
XBA2t-1              0.001           0.016**
                    (0.003)         (0.007)
Agentet              0.217           0.248**
                    (0.150)         (0.113)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 12.381, df = 5, p-value = 0.02993
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.20709968  0.14436921  1.4345   0.1526
Edad_t              -0.00732079  0.00497698 -1.4709   0.1425
Anios_de_contrato_t -0.01279084  0.01192645 -1.0725   0.2845
team_num_t           0.00065570  0.00089956  0.7289   0.4667
X_Home_runs_2_t     -0.00044148  0.00091705 -0.4814   0.6306
X_Home_runs_2_t_1    0.00044396  0.00067863  0.6542   0.5136

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.007          -0.007**
                       (0.005)         (0.003)
Años contratot         -0.013           -0.017
                       (0.012)         (0.028)
Eqipot                  0.001          0.004**
                       (0.001)         (0.002)
XDt                    -0.0004          -0.002
                       (0.001)         (0.005)
XDt-1                  0.0004           -0.002
                       (0.001)         (0.002)
Agentet                 0.207           0.197*
                       (0.144)         (0.118)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.9793, df = 5, p-value = 0.7032
alternative hypothesis: one model is inconsistent


t test of coefficients:
```

```
                          Estimate  Std. Error t value Pr(>|t|)
(Intercept)             0.23446318  0.15269634  1.5355   0.1259
Edad_t                 -0.00819320  0.00517467 -1.5833   0.1146
Anios_de_contrato_t    -0.01213999  0.01080593 -1.1235   0.2623
team_num_t              0.00066360  0.00091514  0.7251   0.4690
X_Juegos_iniciados_t   -0.00103273  0.00148343 -0.6962   0.4869
X_Juegos_iniciados_t_1 -0.00029708  0.00161726 -0.1837   0.8544

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                    Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.008         -0.008***
                     (0.005)         (0.003)
Años contratot       -0.012           -0.016
                     (0.011)         (0.027)
Eqipot                0.001           0.004*
                     (0.001)         (0.002)
XD2t                 -0.001           0.005
                     (0.001)         (0.004)
XD2t-1               -0.0003          0.001
                     (0.002)         (0.004)
Agentet               0.234          0.243**
                     (0.153)         (0.119)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 7.749, df = 5, p-value = 0.1706
alternative hypothesis: one model is inconsistent


t test of coefficients:

                                        Estimate  Std. Error t value Pr(>|t|)
(Intercept)                           0.20674545  0.15160192  1.3637   0.1738
Edad_t                               -0.00749602  0.00504404 -1.4861   0.1385
Anios_de_contrato_t                  -0.01388757  0.01082147 -1.2833   0.2005
team_num_t                            0.00074447  0.00089566  0.8312   0.4066
X_Porcentaje_On_base_plus_slugging_t -0.01537803  0.01295373 -1.1872   0.2363
X_Porcentaje_On_base_plus_slugging_t_1  0.02366300  0.02173902  1.0885   0.2774
```

```
[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.007         -0.008***
                     (0.005)         (0.003)
Años contratot       -0.014          -0.010
                     (0.011)         (0.026)
Eqipot                0.001          0.004**
                     (0.001)         (0.002)
XHRt                 -0.015          -0.001
                     (0.013)         (0.041)
XHRt-1                0.024          -0.028
                     (0.022)         (0.023)
Agentet               0.207          0.227**
                     (0.152)         (0.108)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.6296, df = 5, p-value = 0.2497
alternative hypothesis: one model is inconsistent


t test of coefficients:

                           Estimate  Std. Error t value Pr(>|t|)
(Intercept)              0.20236622  0.15054290  1.3442   0.1800
Edad_t                  -0.00743461  0.00503614 -1.4763   0.1411
Anios_de_contrato_t     -0.01447512  0.01078147 -1.3426   0.1806
team_num_t               0.00076208  0.00087652  0.8694   0.3854
X_Porcentaje_on_base_t  -0.01205993  0.03264452 -0.3694   0.7121
X_Porcentaje_on_base_t_1  0.04307916  0.03031819  1.4209   0.1565

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
```

```
-----------------------------------------------
Edadt               -0.007         -0.008***
                    (0.005)         (0.003)
Años contratot      -0.014          -0.007
                    (0.011)         (0.027)
Eqipot               0.001          0.003*
                    (0.001)         (0.002)
XHR2t               -0.012          -0.058
                    (0.033)         (0.060)
XHR2t-1              0.043          0.036
                    (0.030)         (0.040)
Agentet              0.202          0.236**
                    (0.151)         (0.108)
===============================================
===============================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.8881, df = 5, p-value = 0.3173
alternative hypothesis: one model is inconsistent


t test of coefficients:

                            Estimate  Std. Error t value Pr(>|t|)
(Intercept)                0.20697302  0.14829998  1.3956   0.1640
Edad_t                    -0.00739562  0.00502007 -1.4732   0.1419
Anios_de_contrato_t       -0.01316244  0.01074052 -1.2255   0.2215
team_num_t                 0.00066985  0.00091060  0.7356   0.4626
X_Porcentaje_on_base_2_t  -0.00713576  0.03926458 -0.1817   0.8559
X_Porcentaje_on_base_2_t_1 0.03476448  0.02761710  1.2588   0.2092

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
===============================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt               -0.007         -0.007***
                    (0.005)         (0.003)
Años contratot      -0.013          -0.009
                    (0.011)         (0.027)
Eqipot               0.001          0.004**
                    (0.001)         (0.002)
XGSt                -0.007          -0.076
                    (0.039)         (0.075)
```

```
XGSt-1               0.035          0.00001
                    (0.028)         (0.042)
Agentet              0.207           0.198*
                    (0.148)         (0.112)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.8848, df = 5, p-value = 0.7177
alternative hypothesis: one model is inconsistent


t test of coefficients:

                        Estimate  Std. Error t value Pr(>|t|)
(Intercept)           0.21483978  0.14710882  1.4604   0.1454
Edad_t               -0.00765543  0.00502615 -1.5231   0.1289
Anios_de_contrato_t  -0.01091281  0.01089617 -1.0015   0.3175
team_num_t            0.00079001  0.00091411  0.8642   0.3883
X_Runs_batted_in_t   -0.00307049  0.00180209 -1.7038   0.0896 .
X_Runs_batted_in_t_1  0.00142636  0.00171407  0.8321   0.4061
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.008         -0.008***
                     (0.005)         (0.003)
Años contratot       -0.011           -0.024
                     (0.011)         (0.028)
Eqipot                0.001           0.003
                     (0.001)         (0.002)
XGS2t                -0.003*          0.008
                     (0.002)         (0.005)
XGS2t-1               0.001           0.004
                     (0.002)         (0.005)
Agentet               0.215          0.267**
                     (0.147)         (0.112)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
```

```
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 10.464, df = 5, p-value = 0.0631
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.21000686  0.14657253  1.4328   0.1531
Edad_t              -0.00734867  0.00495372 -1.4835   0.1392
Anios_de_contrato_t -0.01242060  0.01043153 -1.1907   0.2349
team_num_t           0.00043664  0.00092884  0.4701   0.6387
X_Triples_t         -0.00750583  0.01087465 -0.6902   0.4907
X_Triples_t_1        0.01553773  0.00895467  1.7352   0.0839 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -----------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.007         -0.008***
                         (0.005)         (0.003)
Años contratot           -0.012           -0.015
                         (0.010)         (0.027)
Eqipot                   0.0004           0.004*
                         (0.001)         (0.002)
XOPSt                    -0.008           -0.005
                         (0.011)         (0.040)
XOPSt-1                  0.016*           0.011
                         (0.009)         (0.035)
Agentet                   0.210          0.251**
                         (0.147)         (0.123)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.126, df = 5, p-value = 0.8315
```

```
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.21065261  0.14921438  1.4117   0.1592
Edad_t              -0.00743279  0.00503890 -1.4751   0.1414
Anios_de_contrato_t -0.01255542  0.01060511 -1.1839   0.2375
team_num_t           0.00062495  0.00088858  0.7033   0.4825
X_Triples_2_t       -0.00033286  0.00424605 -0.0784   0.9376
X_Triples_2_t_1      0.00111222  0.00133640  0.8323   0.4060

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                ------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.007         -0.008***
                     (0.005)         (0.002)
Años contratot       -0.013           -0.005
                     (0.011)         (0.020)
Eqipot                0.001          0.004***
                     (0.001)         (0.001)
XOPS2t               -0.0003          0.039
                     (0.004)         (0.031)
XOPS2t-1              0.001           0.020*
                     (0.001)         (0.010)
Agentet               0.211          0.247***
                     (0.149)         (0.083)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 13.049, df = 5, p-value = 0.02292
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.27988134  0.13937756  2.0081 0.045669 *
Edad_t              -0.00908894  0.00470776 -1.9306 0.054616 .
Anios_de_contrato_t -0.01696385  0.01068681 -1.5874 0.113646
```

```
team_num_t           0.00079385  0.00086411  0.9187 0.359107
X_WAR_t              0.02089586  0.00787592  2.6531 0.008466 **
X_WAR_t_1            0.01875031  0.00922125  2.0334 0.043030 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[1] "Remaining years:"

Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.009*        -0.012***
                         (0.005)         (0.002)
Años contratot           -0.017           -0.031
                         (0.011)         (0.024)
Eqipot                    0.001          0.004**
                         (0.001)         (0.002)
XOBPt                   0.021***         0.060***
                         (0.008)         (0.016)
XOBPt-1                  0.019**          0.015
                         (0.009)         (0.020)
Agentet                  0.280**         0.394***
                         (0.139)         (0.100)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 7.1932, df = 5, p-value = 0.2067
alternative hypothesis: one model is inconsistent


t test of coefficients:

                       Estimate  Std. Error t value Pr(>|t|)
(Intercept)          0.25661151  0.13458928  1.9066  0.05767 .
Edad_t              -0.00856865  0.00455832 -1.8798  0.06126 .
Anios_de_contrato_t -0.01262751  0.01118863 -1.1286  0.26011
team_num_t           0.00053418  0.00090818  0.5882  0.55692
X_WAR_2_t            0.00561430  0.00510592  1.0996  0.27254
X_WAR_2_t_1          0.00832851  0.00579709  1.4367  0.15201
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[1] "Remaining years:"
```

```
Bateadores regulares: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -----------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.009*         -0.006**
                         (0.005)         (0.002)
Años contratot           -0.013           -0.031
                         (0.011)         (0.022)
Eqipot                    0.001          0.004**
                         (0.001)         (0.002)
XOBP2t                    0.006          0.060***
                         (0.005)         (0.021)
XOBP2t-1                  0.008           0.008*
                         (0.006)         (0.004)
Agentet                  0.257*          0.219**
                         (0.135)         (0.096)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.987, df = 5, p-value = 0.03497
alternative hypothesis: one model is inconsistent
```

Starting pitcher

```
Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -----------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                    -0.009           -0.005
                         (0.009)         (0.011)
Años contratot           -0.002           -0.023
                         (0.012)         (0.014)
Eqipot                   0.002*           0.001
                         (0.001)         (0.004)
XH2t                     -0.0002          0.0002
                        (0.0001)         (0.0001)
XH2t-1                   -0.0001         -0.0002
                        (0.0001)         (0.0002)
```

```
Agentet              0.291           0.127
                    (0.291)         (0.340)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 10.023, df = 5, p-value = 0.07458
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.011           -0.005
                    (0.008)         (0.012)
Años contratot      -0.017           -0.018
                    (0.012)         (0.013)
Eqipot              0.003**          0.003
                    (0.001)         (0.003)
XHt                  0.003          0.002**
                    (0.003)         (0.001)
XHt-1               -0.0005          0.003
                    (0.001)         (0.003)
Agentet              0.354           0.064
                    (0.275)         (0.398)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.1801, df = 5, p-value = 0.1466
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
```

```
                      (1)             (2)
-----------------------------------------------
Edadt                -0.010           -0.005
                     (0.009)         (0.011)
Años contratot       -0.010           -0.014
                     (0.010)         (0.014)
Eqipot               0.003**          0.001
                     (0.001)         (0.004)
XR2t                 -0.0001         0.001**
                    (0.0003)         (0.0003)
XR2t-1              -0.00005         -0.0003
                    (0.0001)         (0.0004)
Agentet               0.308           0.098
                     (0.296)         (0.312)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.7425, df = 5, p-value = 0.2405
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
===============================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt                -0.009           -0.004
                     (0.009)         (0.012)
Años contratot       -0.007           -0.013
                     (0.011)         (0.013)
Eqipot               0.002*           0.002
                     (0.001)         (0.003)
XER2t                -0.003          0.004***
                     (0.002)         (0.001)
XER2t-1               0.001           0.003
                     (0.002)         (0.003)
Agentet               0.295           0.059
                     (0.288)         (0.373)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 22.724, df = 5, p-value = 0.0003812
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.008           -0.004
                       (0.008)         (0.012)
Años contratot         -0.010          -0.021*
                       (0.012)         (0.012)
Eqipot                 0.002*           0.0001
                       (0.001)         (0.003)
XERt                   0.0004           -0.004
                       (0.011)         (0.010)
XERt-1                -0.023**          0.004
                       (0.010)         (0.007)
Agentet                 0.256           0.101
                       (0.274)         (0.372)
================================================
================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.6474, df = 5, p-value = 0.124
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
------------------------------------------------
Edadt                  -0.010           -0.005
                       (0.009)         (0.012)
Años contratot         -0.010           -0.013
                       (0.012)         (0.014)
Eqipot                 0.003*           0.002
                       (0.001)         (0.002)
XRt                    -0.001          0.003**
```

```
                    (0.002)         (0.001)
XRt-1                0.001           0.003
                    (0.002)         (0.003)
Agentet              0.310           0.091
                    (0.289)         (0.374)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 22.589, df = 5, p-value = 0.0004045
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.010          -0.005
                     (0.009)         (0.009)
Años contratot       -0.011          -0.056
                     (0.010)         (0.037)
Eqipot               0.003**          0.002
                     (0.001)         (0.003)
XComando2t            0.001          -0.044*
                     (0.005)         (0.024)
XComando2t-1        -0.00000         0.024
                    (0.00000)        (0.019)
Agentet               0.310           0.139
                     (0.298)         (0.301)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 7.0527, df = 5, p-value = 0.2168
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                     Dependent variable:
```

```
                --------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.009           -0.001
                     (0.010)         (0.010)
Años contratot       -0.013           -0.015
                     (0.010)         (0.014)
Eqipot               0.002*           -0.001
                     (0.001)         (0.004)
XComandot             0.010           -0.018
                     (0.016)         (0.030)
XComandot-1          -0.0001          -0.020
                    (0.0003)         (0.039)
Agentet               0.306           -0.009
                     (0.296)         (0.330)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.4307, df = 5, p-value = 0.7869
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
                --------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.011           -0.007
                     (0.009)         (0.009)
Años contratot       -0.008          -0.024*
                     (0.011)         (0.013)
Eqipot               0.003**          -0.0005
                     (0.001)         (0.003)
XControl2t          -0.114**         0.385***
                     (0.054)         (0.089)
XControl2t-1        -0.086***       -0.374***
                     (0.019)         (0.084)
Agentet               0.300           0.202
                     (0.282)         (0.280)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
```

```
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 34.08, df = 5, p-value = 2.295e-06
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                ------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.009           -0.005
                     (0.008)         (0.009)
Años contratot       -0.014           -0.005
                     (0.012)         (0.018)
Eqipot               0.002*          0.007**
                     (0.001)         (0.003)
XControlt             0.028           0.100
                     (0.040)         (0.066)
XControlt-1          -0.077*        -0.232***
                     (0.039)         (0.081)
Agentet               0.274           0.014
                     (0.270)         (0.299)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.9098, df = 5, p-value = 0.5625
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                ------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.009           -0.011
                     (0.008)         (0.010)
Años contratot       -0.011           -0.027
                     (0.012)         (0.020)
```

```
Eqipot              0.003**          0.001
                    (0.001)         (0.003)
XDominio2t           0.006           -0.022
                    (0.034)         (0.039)
XDominio2t-1       0.056***          -0.075
                    (0.019)         (0.053)
Agentet              0.285           0.314
                    (0.269)         (0.356)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 624.66, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
                -------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.008           -0.020
                     (0.008)         (0.014)
Años contratot       -0.013           -0.028
                     (0.011)         (0.018)
Eqipot               0.002*           0.004
                     (0.001)         (0.004)
XDominiot             0.011           -0.089
                     (0.022)         (0.098)
XDominiot-1         0.062***          -0.059
                     (0.022)         (0.080)
Agentet               0.289           0.550
                     (0.270)         (0.456)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 43.099, df = 5, p-value = 3.528e-08
alternative hypothesis: one model is inconsistent
```

```
Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.009          -0.005
                          (0.009)         (0.012)
Años contratot            -0.003          -0.026
                          (0.011)         (0.024)
Eqipot                    0.003**          0.002
                          (0.001)         (0.004)
XERA2t                    -0.0002         0.0003**
                         (0.0001)         (0.0001)
XERA2t-1                  0.00003          0.0001
                         (0.0001)         (0.0002)
Agentet                    0.264           0.088
                          (0.297)         (0.361)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.181, df = 5, p-value = 0.004169
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.009          -0.004
                          (0.009)         (0.011)
Años contratot            -0.008          -0.024
                          (0.012)         (0.015)
Eqipot                    0.003**          0.0002
                          (0.001)         (0.004)
XERAt                     -0.001           0.002
                          (0.001)         (0.002)
XERAt-1                    0.001          -0.0003
                          (0.001)         (0.003)
Agentet                    0.280           0.099
                          (0.299)         (0.345)
================================================
```

```
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.6392, df = 5, p-value = 0.4615
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.010           -0.005
                     (0.009)         (0.011)
Años contratot       -0.010           -0.021
                     (0.009)         (0.013)
Eqipot               0.003*           0.002
                     (0.001)         (0.003)
XIP2t                -0.002           0.006*
                     (0.002)         (0.003)
XIP2t-1              0.0003           -0.002
                     (0.001)         (0.004)
Agentet               0.309           0.114
                     (0.289)         (0.360)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.9287, df = 5, p-value = 0.4246
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.011           -0.006
```

```
                    (0.009)         (0.012)
Años contratot      -0.010           -0.024
                    (0.010)         (0.014)
Eqipot              0.003**         -0.0002
                    (0.001)         (0.003)
XIPt               0.261***         0.056***
                    (0.062)         (0.019)
XIPt-1             0.027***         0.212**
                    (0.010)         (0.081)
Agentet              0.353           0.177
                    (0.297)         (0.377)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.1524, df = 5, p-value = 0.8277
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.011           -0.006
                    (0.009)         (0.012)
Años contratot      -0.011           -0.024
                    (0.010)         (0.015)
Eqipot              0.003**         -0.0002
                    (0.001)         (0.003)
XL2t               0.142***         0.036**
                    (0.043)         (0.013)
XL2t-1              0.057**          0.064
                    (0.022)         (0.043)
Agentet              0.358           0.177
                    (0.297)         (0.379)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.3385, df = 5, p-value = 0.8006
```

```
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.010           -0.002
                          (0.008)         (0.012)
Años contratot            -0.009           -0.026
                          (0.011)         (0.020)
Eqipot                    0.003**          0.002
                          (0.001)         (0.004)
XDLt                     -0.0001*        0.0003***
                         (0.0001)         (0.0001)
XLt-1                     0.0002           0.0001
                         (0.0002)         (0.0002)
Agentet                    0.308           0.026
                          (0.278)         (0.379)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 13.204, df = 5, p-value = 0.02154
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     -0.010           -0.002
                          (0.009)         (0.012)
Años contratot            -0.017           -0.027
                          (0.011)         (0.020)
Eqipot                    0.003**          0.001
                          (0.001)         (0.004)
XS2t                       0.001           0.001
                          (0.001)         (0.002)
XS2t-1                     0.002           0.001
                          (0.001)         (0.002)
```

```
Agentet              0.324           0.044
                    (0.294)         (0.351)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.188, df = 5, p-value = 0.671
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt               -0.010           -0.008
                    (0.009)         (0.010)
Años contratot      -0.012           -0.007
                    (0.011)         (0.034)
Eqipot              0.002*           0.001
                    (0.001)         (0.004)
XSt                 -0.001           0.029*
                    (0.003)         (0.017)
XSt-1                0.004           -0.007
                    (0.004)         (0.006)
Agentet              0.330           0.202
                    (0.290)         (0.282)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.1496, df = 5, p-value = 0.8281
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
```

```
                      (1)             (2)
-----------------------------------------------
Edadt                -0.006           -0.007
                     (0.008)         (0.009)
Años contratot       -0.011           -0.026
                     (0.013)         (0.018)
Eqipot               0.003*           -0.002
                     (0.001)         (0.006)
XSO2t                -0.006           0.038
                     (0.015)         (0.033)
XSO2t-1             -0.041***         0.002
                     (0.013)         (0.029)
Agentet               0.169           0.244
                     (0.272)         (0.277)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.7346, df = 5, p-value = 0.4491
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
===============================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt                -0.008           -0.006
                     (0.008)         (0.010)
Años contratot       -0.014           -0.021
                     (0.012)         (0.015)
Eqipot               0.003**          -0.001
                     (0.001)         (0.005)
XSOt                 -0.004           0.023
                     (0.017)         (0.034)
XSOt-1              -0.047**          -0.001
                     (0.018)         (0.026)
Agentet               0.250           0.192
                     (0.273)         (0.305)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 5.7543, df = 5, p-value = 0.3309
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.009           -0.003
                     (0.009)         (0.010)
Años contratot       -0.010           -0.019
                     (0.010)         (0.013)
Eqipot               0.003**          0.002
                     (0.001)         (0.005)
XWAR2t               0.0001           0.001*
                    (0.0003)         (0.001)
XWAR2t-1             0.0002           0.0002
                    (0.0003)         (0.001)
Agentet               0.290           0.027
                     (0.288)         (0.299)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.3346, df = 5, p-value = 0.275
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.010           -0.004
                     (0.009)         (0.011)
Años contratot       -0.011           -0.036
                     (0.012)         (0.021)
Eqipot               0.003*           0.004
                     (0.001)         (0.003)
XWARt                 0.001           0.004
```

```
                    (0.003)         (0.003)
XWARt-1              0.001           0.008
                    (0.003)         (0.005)
Agentet              0.313           0.046
                    (0.307)         (0.369)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 6.3998, df = 5, p-value = 0.2692
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (Random Effects)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                     (1)             (2)
------------------------------------------------
Edadt               -0.009          -0.004
                    (0.009)         (0.011)
Años contratot      -0.003          -0.028
                    (0.012)         (0.022)
Eqipot              0.003**          0.001
                    (0.001)         (0.004)
XWHIP2t             -0.008           0.005
                    (0.005)         (0.007)
XWHIP2t-1           -0.0001          0.003
                    (0.005)         (0.010)
Agentet              0.257           0.096
                    (0.301)         (0.340)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 9.2149, df = 5, p-value = 0.1008
alternative hypothesis: one model is inconsistent
```

First Differences

Bateadores

Se obtendrán las estimaciones de las variables referentes a estadísticas deportivas sin controles

```
Bateadores regulares: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.011         -0.016***
                           (0.009)         (0.0004)
Años contratot            -0.019**        -0.062***
                           (0.008)         (0.003)
Eqipot                      0.001          0.006***
                           (0.001)         (0.001)
XABt                        0.001          0.003**
                           (0.001)         (0.001)
XABt-1                      0.001           0.002*
                           (0.001)         (0.001)
================================================
================================================
Note:                      *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.4892, df = 5, p-value = 0.4813
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.007         -0.015***
                           (0.008)         (0.001)
Años contratot            -0.018**        -0.082***
                           (0.009)         (0.004)
Eqipot                      0.001          0.005***
                           (0.001)         (0.001)
XAB2t                      -0.0001          0.001
                           (0.0001)        (0.0003)
XAB2t-1                    0.00002          0.0001
```

```
                  (0.0001)         (0.0003)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.652, df = 5, p-value = 0.8949
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.008         -0.016***
                      (0.009)         (0.0003)
Años contratot      -0.019**         -0.077***
                      (0.009)         (0.011)
Eqipot                 0.001          0.005***
                      (0.001)         (0.001)
XHt                   -0.0002          0.004
                      (0.001)         (0.003)
XHt-1                  0.001           0.002
                      (0.001)         (0.004)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.2242, df = 5, p-value = 0.9425
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.007         -0.015***
```

```
                    (0.008)          (0.0004)
Años contratot     -0.021**         -0.075***
                    (0.009)          (0.007)
Eqipot              0.002**          0.006***
                    (0.001)          (0.001)
XH2t               0.050***           -0.014
                    (0.019)          (0.025)
XH2t-1             0.071***         -0.039***
                    (0.025)          (0.006)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.28455, df = 5, p-value = 0.9979
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 0.007          -0.015***
                     (0.008)          (0.001)
Años contratot     -0.018**         -0.071***
                     (0.008)          (0.012)
Eqipot                0.001           0.005***
                     (0.001)          (0.001)
XBAt                 -0.020            -0.084
                     (0.050)          (0.071)
XBAt-1               0.041*            0.013
                     (0.023)          (0.024)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.4046, df = 5, p-value = 0.3685
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
```

```
================================================
                      Dependent variable:
               ---------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.007         -0.015***
                      (0.010)         (0.001)
Años contratot      -0.020**         -0.081***
                      (0.009)         (0.010)
Eqipot                 0.001          0.005***
                      (0.001)         (0.001)
XBA2t                  0.003          0.030***
                      (0.004)         (0.006)
XBA2t-1                0.002          0.019**
                      (0.003)         (0.008)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 9.1154, df = 5, p-value = 0.1045
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               ---------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.009         -0.016***
                      (0.009)         (0.0004)
Años contratot       -0.018*         -0.069***
                      (0.010)         (0.010)
Eqipot                 0.001          0.006***
                      (0.001)         (0.001)
XDt                   -0.0005          0.007**
                      (0.001)         (0.003)
XDt-1                  0.001          0.007**
                      (0.001)         (0.003)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 5.0022, df = 5, p-value = 0.4156
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.011         -0.015***
                      (0.009)         (0.0004)
Años contratot      -0.019**         -0.081***
                      (0.008)         (0.010)
Eqipot                 0.001          0.006***
                      (0.001)         (0.001)
XD2t                   0.002           0.008*
                      (0.001)         (0.004)
XD2t-1                 0.002           0.005*
                      (0.001)         (0.003)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.25077, df = 5, p-value = 0.9985
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.007         -0.015***
                      (0.008)         (0.001)
Años contratot      -0.023**         -0.078***
                      (0.009)         (0.007)
Eqipot               0.002**          0.006***
                      (0.001)         (0.0005)
XHRt                 0.018**           0.017
                      (0.009)         (0.016)
```

```
XHRt-1              0.057**        -0.057***
                    (0.022)         (0.008)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.70247, df = 5, p-value = 0.9828
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 0.008         -0.015***
                     (0.008)         (0.0005)
Años contratot      -0.023**        -0.079***
                     (0.009)         (0.008)
Eqipot               0.002**         0.006***
                     (0.001)         (0.0005)
XHR2t                0.061*           0.004
                     (0.035)         (0.033)
XHR2t-1             0.099***        -0.048***
                     (0.031)         (0.012)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.857, df = 5, p-value = 0.03681
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
```

```
Edadt                0.009         -0.015***
                    (0.008)         (0.001)
Años contratot     -0.022**        -0.071***
                    (0.010)         (0.012)
Eqipot             0.002***         0.006***
                    (0.001)         (0.001)
XGSt               0.158***          -0.029
                    (0.053)         (0.050)
XGSt-1               0.024         -0.052***
                    (0.023)         (0.012)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.9246, df = 5, p-value = 0.1121
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                0.008         -0.015***
                    (0.008)         (0.0003)
Años contratot     -0.018**        -0.088***
                    (0.009)         (0.009)
Eqipot               0.001          0.006***
                    (0.001)         (0.001)
XGS2t               -0.001           0.008
                    (0.001)         (0.005)
XGS2t-1             0.003*           0.006*
                    (0.001)         (0.003)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.5016, df = 5, p-value = 0.4797
alternative hypothesis: one model is inconsistent
```

```
Bateadores regulares: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     0.006         -0.012***
                         (0.009)         (0.001)
Años contratot          -0.018**        -0.072***
                         (0.009)         (0.013)
Eqipot                    0.001          0.004***
                         (0.001)         (0.0005)
XOPSt                     0.001         -0.045***
                         (0.013)         (0.008)
XOPSt-1                   0.005           -0.015
                         (0.013)         (0.014)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 27.246, df = 5, p-value = 5.109e-05
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                     0.006         -0.015***
                         (0.009)         (0.0005)
Años contratot          -0.017**        -0.035***
                         (0.009)         (0.004)
Eqipot                    0.001          0.006***
                         (0.001)         (0.0005)
XOPS2t                    0.002          0.120***
                         (0.004)         (0.010)
XOPS2t-1                  0.004          0.026***
                         (0.005)         (0.002)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 47.959, df = 5, p-value = 3.621e-09
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                ---------------------------------
                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                  0.003         -0.025***
                      (0.008)         (0.001)
Años contratot      -0.024**         -0.076***
                      (0.009)         (0.008)
Eqipot                0.001*          0.007***
                      (0.001)         (0.001)
XOBPt                0.020***         0.054***
                      (0.007)         (0.004)
XOBPt-1               0.009           0.058***
                      (0.009)         (0.004)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.073, df = 5, p-value = 0.04995
alternative hypothesis: one model is inconsistent


Bateadores regulares: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                ---------------------------------
                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                  0.005         -0.016***
                      (0.007)         (0.001)
Años contratot       -0.020*         -0.056***
                      (0.010)         (0.002)
Eqipot                 0.001          0.005***
                      (0.001)         (0.001)
XOBP2t                 0.004          0.063***
```

```
                    (0.005)         (0.013)
XOBP2t-1             0.008          -0.019**
                    (0.006)         (0.008)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 23.62, df = 5, p-value = 0.0002568
alternative hypothesis: one model is inconsistent
```

Starting pitcher

```
Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                -0.004          0.070***
                     (0.016)         (0.022)
Años contratot        0.001          0.096***
                     (0.006)         (0.028)
Eqipot               0.002**          0.002
                     (0.001)         (0.001)
XH2t                -0.00004         -0.00005
                    (0.0001)        (0.00003)
XH2t-1               0.00000         -0.0001
                    (0.0001)         (0.0001)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.5504, df = 5, p-value = 0.9072
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                ---------------------------------
```

```
               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt                -0.005          0.054**
                     (0.012)         (0.022)
Años contratot     -0.020**          0.078**
                     (0.008)         (0.029)
Eqipot             0.003***          0.004***
                     (0.001)         (0.001)
XHt                0.006***          -0.002**
                     (0.002)         (0.001)
XHt-1                -0.0001         0.003***
                     (0.001)         (0.001)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 13.252, df = 5, p-value = 0.02113
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
===============================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-----------------------------------------------
Edadt                -0.002          0.070**
                     (0.014)         (0.023)
Años contratot       -0.001          0.093**
                     (0.006)         (0.031)
Eqipot               0.002**          0.002
                     (0.001)         (0.002)
XR2t                 -0.0002         -0.00004
                    (0.0001)         (0.0001)
XR2t-1               0.0002          0.00002
                    (0.0001)         (0.0001)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.9911, df = 5, p-value = 0.8504
```

```
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                       0.002          0.067**
                           (0.014)         (0.024)
Años contratot             -0.002          0.091**
                           (0.006)         (0.032)
Eqipot                     0.002**         0.005**
                           (0.001)         (0.002)
XER2t                       0.001           -0.002
                           (0.001)         (0.001)
XER2t-1                    0.003**         0.004**
                           (0.001)         (0.002)
================================================
================================================
Note:                    *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.1871, df = 5, p-value = 0.9461
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
                    -------------------------------

                    Primeros dos años Años restantes
                           (1)             (2)
------------------------------------------------
Edadt                      -0.002          0.106***
                           (0.012)         (0.027)
Años contratot              0.008          0.138***
                           (0.007)         (0.035)
Eqipot                      0.001          0.005***
                           (0.001)         (0.001)
XERt                       0.020**        -0.023***
                           (0.008)         (0.007)
XERt-1                     -0.012*         0.003***
                           (0.007)         (0.001)
================================================
================================================
```

```
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.394, df = 5, p-value = 0.1358
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                  0.003          0.055**
                      (0.014)         (0.020)
Años contratot        -0.008          0.074**
                      (0.007)         (0.027)
Eqipot               0.002**          0.003**
                      (0.001)         (0.001)
XRt                  0.003**          -0.002
                      (0.001)         (0.001)
XRt-1                0.003**          0.003*
                      (0.001)         (0.001)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 0.033692, df = 5, p-value = 1
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 -0.005          0.084**
                      (0.016)         (0.030)
Años contratot        -0.0001         0.113**
                      (0.005)         (0.039)
```

```
Eqipot             0.002***          0.004*
                    (0.001)          (0.002)
XComando2t          -0.003          -0.021**
                    (0.005)          (0.007)
XComando2t-1        0.00000         -0.002**
                   (0.00000)         (0.001)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.1627, df = 5, p-value = 0.9484
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                     Dependent variable:
               -------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.001          0.083***
                     (0.016)         (0.027)
Años contratot       -0.007          0.108***
                     (0.004)         (0.035)
Eqipot               0.002*           0.004
                     (0.001)         (0.003)
XComandot             0.017         -0.037***
                     (0.020)         (0.006)
XComandot-1          0.0003*          0.010
                    (0.0002)         (0.020)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.1662, df = 5, p-value = 0.8257
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                     Dependent variable:
               -------------------------------
```

```
               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                -0.003          0.079***
                     (0.014)         (0.016)
Años contratot        0.001          0.103***
                     (0.007)         (0.022)
Eqipot              0.002***         0.004**
                     (0.001)         (0.001)
XControl2t           -0.073          0.258***
                     (0.043)         (0.020)
XControl2t-1        -0.044***       -0.390***
                     (0.016)         (0.030)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 20.599, df = 5, p-value = 0.000964
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
=================================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
-------------------------------------------------
Edadt                -0.001          0.043**
                     (0.012)         (0.014)
Años contratot       -0.003          0.071***
                     (0.007)         (0.018)
Eqipot              0.002***         0.010***
                     (0.001)         (0.001)
XControlt            -0.018          -0.034**
                     (0.029)         (0.013)
XControlt-1          -0.065*        -0.235***
                     (0.035)         (0.011)
=================================================
=================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
```

```
chisq = 3.4391, df = 5, p-value = 0.6326
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
               --------------------------------
               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.003           0.003
                     (0.013)         (0.005)
Años contratot        0.004           -0.005
                     (0.007)         (0.007)
Eqipot              0.003***        -0.0005**
                     (0.001)         (0.0002)
XDominio2t           -0.020         -0.003***
                     (0.026)         (0.001)
XDominio2t-1        0.028***        -0.129***
                     (0.011)         (0.002)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.387, df = 5, p-value = 0.003822
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                        Dependent variable:
               --------------------------------
               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.005         -0.017***
                     (0.014)         (0.002)
Años contratot       -0.001         -0.022***
                     (0.007)         (0.003)
Eqipot               0.002**         0.002***
                     (0.001)         (0.0002)
XDominiot             0.002          -0.062***
                     (0.012)         (0.002)
XDominiot-1           0.017          -0.122***
                     (0.014)         (0.002)
================================================
```

```
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 25.985, df = 5, p-value = 8.982e-05
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.003          0.062**
                     (0.015)         (0.023)
Años contratot        0.001          0.074**
                     (0.006)         (0.029)
Eqipot               0.002**          0.002*
                     (0.001)         (0.001)
XERA2t               -0.0001        -0.0001***
                    (0.0001)        (0.00003)
XERA2t-1             0.0001         0.0002***
                    (0.0001)        (0.00003)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.313, df = 5, p-value = 0.6518
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.0002         0.067**
                     (0.014)         (0.025)
Años contratot        0.002          0.089**
```

```
                    (0.008)         (0.033)
Eqipot             0.002***         0.003**
                    (0.001)         (0.001)
XERAt               -0.001           -0.001
                    (0.001)         (0.0005)
XERAt-1             0.002**         0.002***
                    (0.001)         (0.0004)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.4718, df = 5, p-value = 0.9163
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                     Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.003          0.067**
                     (0.014)         (0.022)
Años contratot       -0.001          0.091**
                     (0.007)         (0.030)
Eqipot              0.002***          0.001
                     (0.001)         (0.002)
XIP2t                 0.001           -0.003
                     (0.001)         (0.002)
XIP2t-1              0.0004           -0.001
                     (0.001)         (0.003)
================================================
================================================
Note:               *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.0224, df = 5, p-value = 0.846
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                     Dependent variable:
```

```
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
-----------------------------------------------
Edadt                -0.004          0.072***
                     (0.014)         (0.022)
Años contratot       -0.001          0.096***
                     (0.006)         (0.029)
Eqipot              0.002***         0.002**
                     (0.001)         (0.001)
XIPt                0.301***         0.090***
                     (0.004)         (0.003)
XIPt-1                0.014         -0.243***
                     (0.013)         (0.029)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.7209, df = 5, p-value = 0.8863
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
===============================================
                      Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
-----------------------------------------------
Edadt                -0.004          0.075***
                     (0.014)         (0.021)
Años contratot       -0.001          0.101***
                     (0.006)         (0.028)
Eqipot               0.002**         0.003**
                     (0.001)         (0.001)
XL2t                0.191***         0.064***
                     (0.015)         (0.005)
XL2t-1                0.017         -0.109***
                     (0.028)         (0.021)
===============================================
===============================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 2.1889, df = 5, p-value = 0.8224
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------
               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.001          0.066**
                     (0.013)         (0.023)
Años contratot        0.006          0.083**
                     (0.008)         (0.030)
Eqipot              0.002***         0.003**
                     (0.001)         (0.001)
XDLt                -0.0001*        -0.0002***
                    (0.00005)       (0.00002)
XLt-1               -0.00004        0.0002***
                    (0.0001)        (0.00001)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.3822, df = 5, p-value = 0.7941
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------
               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.003          0.066**
                     (0.014)         (0.024)
Años contratot       -0.009          0.081**
                     (0.009)         (0.032)
Eqipot              0.002***         0.003**
                     (0.001)         (0.001)
XS2t                  0.002          -0.001*
                     (0.001)         (0.0004)
XS2t-1               0.002**         0.002***
                     (0.001)         (0.0001)
```

```
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.2097, df = 5, p-value = 0.8194
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.003          0.080***
                     (0.013)         (0.025)
Años contratot        0.001          0.126***
                     (0.007)         (0.035)
Eqipot              0.002***          0.002
                     (0.001)         (0.001)
XSt                  -0.003           0.008
                     (0.002)         (0.005)
XSt-1                -0.001         -0.005***
                     (0.002)         (0.001)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.823, df = 5, p-value = 0.8731
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
               --------------------------------

               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                 0.007          0.044***
                     (0.013)         (0.009)
```

```
Años contratot       0.008          0.056***
                    (0.007)         (0.010)
Eqipot              0.002**         0.00001
                    (0.001)         (0.001)
XSO2t                0.013           0.034
                    (0.011)         (0.022)
XSO2t-1            -0.030***         -0.003
                    (0.011)         (0.006)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 3.1525, df = 5, p-value = 0.6765
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                      Dependent variable:
                ---------------------------------

                Primeros dos años Años restantes
                       (1)             (2)
------------------------------------------------
Edadt                 0.003          0.048**
                     (0.013)         (0.020)
Años contratot        0.003          0.067**
                     (0.006)         (0.027)
Eqipot               0.002**          0.001
                     (0.001)         (0.001)
XSOt                  0.005          0.024**
                     (0.015)         (0.011)
XSOt-1              -0.047***         -0.003
                     (0.018)         (0.003)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 7.7591, df = 5, p-value = 0.17
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
```

```
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
-------------------------------------------------
Edadt                  0.0003          0.071***
                       (0.013)         (0.019)
Años contratot         -0.001          0.093***
                       (0.006)         (0.025)
Eqipot                 0.002**          0.0004
                       (0.001)         (0.002)
XWAR2t                 0.001**        -0.001***
                      (0.0003)         (0.0002)
XWAR2t-1               0.001**         -0.0004
                      (0.0002)         (0.0002)
=================================================
=================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 2.7943, df = 5, p-value = 0.7317
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
=================================================
                      Dependent variable:
                  -------------------------------

                  Primeros dos años Años restantes
                         (1)             (2)
-------------------------------------------------
Edadt                   0.003          0.061**
                       (0.014)         (0.021)
Años contratot          0.001          0.082**
                       (0.008)         (0.029)
Eqipot                 0.001*          0.005***
                       (0.001)         (0.001)
XWARt                  0.005**        -0.004***
                       (0.002)         (0.001)
XWARt-1               0.006***         0.007***
                       (0.002)         (0.001)
=================================================
=================================================
Note:                  *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test
```

```
data:  formula
chisq = 0.37273, df = 5, p-value = 0.996
alternative hypothesis: one model is inconsistent


Lanzadores iniciales: Efecto de la edad (First Differences)
================================================
                       Dependent variable:
               --------------------------------
               Primeros dos años Años restantes
                      (1)             (2)
------------------------------------------------
Edadt                -0.003          0.064**
                     (0.014)         (0.025)
Años contratot        0.003          0.076**
                     (0.009)         (0.033)
Eqipot               0.002**         0.004**
                     (0.001)         (0.001)
XWHIP2t              -0.004           -0.001
                     (0.005)         (0.002)
XWHIP2t-1             0.001          0.009***
                     (0.003)         (0.002)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
[1] ""
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.0795, df = 5, p-value = 0.9559
alternative hypothesis: one model is inconsistent
```

Cambio en el poder de negociación al convertirse en agente

Obtendremos el estimador del cambio en el poder de negociación un periodo antes de que el jugador se convierta en agente libre con el primer periodo como agente libre. Importemos las bases de datos

Tercero, concatenaremos estas bases de datos de acuerdo a los grupos señalados anteriormente

Procedamos con las estimaciones de forma directa, no conjunta, puesto que tenemos como objetivo probar que hay un aumento en el poder de negociación

Pooling

Bateadores

Se obtendrán las estimaciones de las variables referentes a estadísticas deportivas sin controles

```
Bateadores: Modelo Pooling
```

```
=================================================================
                              Dependent variable:
                ------------------------------------------------
                  (1)      (2)      (3)      (4)      (5)      (6)
-----------------------------------------------------------------
Edadt           -0.006   -0.007   -0.007   -0.007   -0.007   -0.007
                (0.004)  (0.004)  (0.005)  (0.004)  (0.004)  (0.004)
Años contratot  -0.006   -0.005   -0.005   -0.006   -0.006   -0.006
                (0.008)  (0.008)  (0.008)  (0.008)  (0.008)  (0.008)
Eqipot           0.001    0.002    0.002    0.002    0.002    0.002
                (0.001)  (0.001)  (0.001)  (0.001)  (0.001)  (0.001)
XABt            -0.002
                (0.001)
XABt-1          0.002**
                (0.001)
XAB2t                    -0.00005
                         (0.0001)
XAB2t-1                  0.00004
                         (0.0001)
XHt                               -0.001
                                  (0.002)
XHt-1                              0.001
                                  (0.002)
XH2t                                       -0.0003*
                                           (0.0002)
XH2t-1                                     0.0003*
                                           (0.0002)
XBAt                                                 0.006
                                                    (0.032)
XBAt-1                                               0.045
                                                    (0.034)
XBA2t                                                        0.032
                                                            (0.030)
XBA2t-1                                                     -0.007
                                                            (0.050)
Agentet          0.166    0.181    0.191    0.176    0.183    0.190
                (0.142)  (0.146)  (0.151)  (0.143)  (0.149)  (0.149)
=================================================================
=================================================================
Note:                                *p<0.1; **p<0.05; ***p<0.01

Bateadores: Modelo Pooling
=================================================================
                              Dependent variable:
                ------------------------------------------------
                  (1)      (2)      (3)      (4)      (5)      (6)
-----------------------------------------------------------------
Edadt           -0.007   -0.007   -0.007   -0.007   -0.006   -0.007
                (0.004)  (0.004)  (0.004)  (0.004)  (0.004)  (0.004)
Años contratot  -0.006   -0.005   -0.004   -0.005   -0.005   -0.006
                (0.008)  (0.008)  (0.008)  (0.008)  (0.008)  (0.008)
Eqipot           0.002    0.002    0.002    0.002    0.002    0.002
```

```
               (0.001) (0.001) (0.001) (0.001) (0.001)  (0.001)
XDt            -0.0001
               (0.005)
XDt-1           0.003
               (0.004)
XD2t                   -0.0002
                       (0.001)
XD2t-1                 0.0002
                       (0.001)
XHRt                           -0.009*
                               (0.005)
XHRt-1                          0.008
                               (0.006)
XHR2t                                  -0.001
                                       (0.001)
XHR2t-1                                0.0003
                                       (0.001)
XGSt                                           -0.003
                                               (0.002)
XGSt-1                                          0.003
                                               (0.002)
XGS2t                                                  -0.0005**
                                                       (0.0002)
XGS2t-1                                                 0.0004*
                                                       (0.0002)
Agentet         0.186   0.185   0.166   0.182   0.166    0.175
               (0.149) (0.149) (0.145) (0.148) (0.144)  (0.143)
=============================================================================
=============================================================================
Note:                                  *p<0.1; **p<0.05; ***p<0.01

Bateadores: Modelo Pooling
=============================================================
                            Dependent variable:
               ---------------------------------------------

                 (1)     (2)     (3)     (4)     (5)     (6)
-------------------------------------------------------------
Edadt          -0.007  -0.007  -0.007  -0.007  -0.007  -0.007
               (0.005) (0.004) (0.004) (0.004) (0.005) (0.005)
Años contratot -0.006  -0.007  -0.005  -0.006  -0.006  -0.006
               (0.008) (0.008) (0.008) (0.008) (0.008) (0.008)
Eqipot          0.001   0.002   0.002   0.002   0.002   0.002
               (0.001) (0.001) (0.001) (0.001) (0.001) (0.001)
XOPSt           0.022
               (0.021)
XOPSt-1         0.006
               (0.020)
XOPS2t                  0.004
                       (0.019)
XOPS2t-1                0.026
                       (0.020)
XOBPt                           0.024
                               (0.032)
```

```
XOBPt-1                          0.013
                                (0.035)
XOBP2t                                   0.016
                                        (0.034)
XOBP2t-1                                 0.064
                                        (0.051)
XSLGt                                            0.029
                                                (0.030)
XSLGt-1                                          0.010
                                                (0.026)
XSLG2t                                                    0.022
                                                         (0.038)
XSLG2t-1                                                  0.011
                                                         (0.032)
Agentet          0.177   0.176   0.183   0.188   0.173   0.181
                (0.151) (0.149) (0.148) (0.148) (0.152) (0.150)
=================================================================
=================================================================
Note:                                *p<0.1; **p<0.05; ***p<0.01
```

Bateadores: Modelo Pooling

```
================================================
                      Dependent variable:
                  -------------------------------

                    (1)     (2)      (3)     (4)
------------------------------------------------
Edadt            -0.007   -0.007  -0.007  -0.007
                 (0.005) (0.004)  (0.004) (0.005)
Años contratot -0.005   -0.004  -0.007  -0.006
                 (0.008) (0.008)  (0.008) (0.008)
Eqipot            0.002   0.002    0.002   0.002
                 (0.001) (0.001)  (0.001) (0.001)
XRBIt            -0.001
                 (0.003)
XRBIt-1          0.0001
                 (0.003)
XRBI2t                  -0.001*
                        (0.0003)
XRBI2t-1                 0.0005
                        (0.0004)
XWARt                             0.004
                                 (0.013)
XWARt-1                          0.024*
                                 (0.012)
XWAR2t                                    0.003
                                         (0.008)
XWAR2t-1                                  0.005
                                         (0.006)
Agentet           0.191   0.181    0.197   0.191
                 (0.152) (0.142)  (0.147) (0.149)
================================================
================================================
Note:                *p<0.1; **p<0.05; ***p<0.01
```

Ahora evaluaremos los cambios estructurales compararemos los modelos estimados para los periodos de cambio en comparación con los primeros dos años de agente libre

Hitter

```
[1] ""
[1] "At_bats"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 59.168, df = 5, p-value = 1.805e-11
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Bateos_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 18.707, df = 5, p-value = 0.002179
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Bateos"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.385, df = 5, p-value = 0.04426
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Bateos_promedio"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 11.884, df = 5, p-value = 0.03642
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Bateos_promedio_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 8.2914, df = 5, p-value = 0.1409
```

```
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Home_runs"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 21.733, df = 5, p-value = 0.0005885
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Home_runs_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 12.028, df = 5, p-value = 0.0344
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Juegos_iniciados"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 73.223, df = 5, p-value = 2.184e-14
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Porcentaje_On_base_plus_slugging"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 721.14, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Porcentaje_on_base"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 5.0247, df = 5, p-value = 0.4129
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Porcentaje_on_base_2"
```

```
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 9.2569, df = 5, p-value = 0.09924
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Runs_batted_in"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 65.011, df = 5, p-value = 1.115e-12
alternative hypothesis: one model is inconsistent

[1] ""
[1] "WAR"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 9.4941, df = 5, p-value = 0.09091
alternative hypothesis: one model is inconsistent

[1] ""
[1] "WAR_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 10.736, df = 5, p-value = 0.05687
alternative hypothesis: one model is inconsistent
```

Starting pitcher

```
Lanzadores Iniciales: Modelo Pooling
================================================================
                              Dependent variable:
                ----------------------------------------------
                   (1)      (2)      (3)      (4)      (5)      (6)
----------------------------------------------------------------------
Edadt            0.001   0.0001   0.0002   0.0002  -0.0002 -0.0003
                (0.002)  (0.002) (0.002)  (0.002)  (0.002) (0.002)
Años contratot  -0.012  -0.013   -0.012   -0.012  -0.011  -0.010
                (0.011)  (0.011) (0.011)  (0.011)  (0.012) (0.012)
Eqipot           0.0002   0.001   0.001    0.001    0.001   0.001
                (0.002)  (0.002) (0.002)  (0.002)  (0.002) (0.002)
```

```
XH2t           -0.0001
               (0.0002)
XH2t-1          0.0002
               (0.0002)
XHt                      0.002
                        (0.003)
XHt-1                    0.002
                        (0.002)
XR2t                             0.0004
                                (0.0004)
XR2t-1                           0.0002
                                (0.0004)
XER2t                                     0.001
                                         (0.0005)
XER2t-1                                  0.00003
                                         (0.0004)
XERt                                              0.005
                                                 (0.005)
XERt-1                                            0.001
                                                 (0.004)
XRt                                                      0.006
                                                        (0.005)
XRt-1                                                    0.001
                                                        (0.004)
=================================================================
=================================================================
Note:                                  *p<0.1; **p<0.05; ***p<0.01

Lanzadores Iniciales: Modelo Pooling
=================================================================
                              Dependent variable:
               ---------------------------------------------------

                 (1)      (2)      (3)       (4)      (5)      (6)
-----------------------------------------------------------------
Edadt          0.0003   0.001    0.001     0.001    0.001    0.001
               (0.002) (0.002)  (0.002)   (0.002)  (0.002) (0.002)
Años contratot -0.009  -0.008   -0.013    -0.008   -0.012   -0.012
               (0.012) (0.011)  (0.011)   (0.010)  (0.012) (0.011)
Eqipot          0.001  -0.0003  -0.001    -0.002   0.0002  -0.00001
               (0.002) (0.002)  (0.002)   (0.002)  (0.002) (0.002)
XComando2t      0.003
               (0.009)
XComando2t-1   -0.006
               (0.008)
XComandot              -0.009
                       (0.016)
XComandot-1            0.027*
                       (0.016)
XControl2t                       0.041
                                (0.062)
XControl2t-1                    -0.296***
                                 (0.106)
ControlHt                                  0.026
```

```
                                        (0.047)
XControlt-1                            -0.189***
                                        (0.048)
XDominio2t                                       0.031
                                                (0.033)
XDominio2t-1                                     0.051
                                                (0.042)
XDominiot                                                0.012
                                                        (0.031)
XDominiot-1                                              0.056*
                                                        (0.033)
=========================================================================
=========================================================================
Note:                                  *p<0.1; **p<0.05; ***p<0.01

Lanzadores Iniciales: Modelo Pooling
=================================================================
                            Dependent variable:
               ---------------------------------------------
                 (1)     (2)     (3)      (4)     (5)     (6)
-----------------------------------------------------------------
Edadt          0.0004  0.0005   0.001    0.001   0.001   0.0003
               (0.002) (0.002) (0.002)  (0.002) (0.002) (0.002)
Años contratot -0.008  -0.013   -0.014  -0.013  -0.009   -0.012
               (0.011) (0.011) (0.011)  (0.011) (0.010) (0.011)
Eqipot          0.001   0.001   0.0003  0.0004  -0.0001  0.0001
               (0.002) (0.002) (0.002)  (0.002) (0.002) (0.002)
XERA2t         0.008*
               (0.004)
XERA2t-1       -0.004
               (0.006)
XERAt                  0.019*
                       (0.011)
XERAt-1                -0.022*
                       (0.012)
XIP2t                          -0.0003
                               (0.0002)
XIP2t-1                        0.0003**
                               (0.0001)
XIPt                                    0.0001
                                        (0.003)
XIPt-1                                   0.003
                                        (0.002)
XL2t                                            0.007**
                                                (0.003)
XL2t-1                                          -0.005*
                                                (0.003)
XLt                                                     0.030***
                                                        (0.011)
XLt-1                                                   -0.017*
                                                        (0.010)
=================================================================
=================================================================
```

```
Note:                                *p<0.1; **p<0.05; ***p<0.01

Lanzadores Iniciales: Modelo Pooling
=================================================================
                            Dependent variable:
               ---------------------------------------------------

                   (1)      (2)     (3)     (4)     (5)     (6)
-----------------------------------------------------------------
Edadt           0.0004   0.0002   0.001   0.001  0.0005   0.001
                (0.002)  (0.002) (0.002) (0.002) (0.002) (0.002)
Años contratot  -0.013   -0.014  -0.011  -0.014  -0.008  -0.009
                (0.011)  (0.011) (0.011) (0.012) (0.011) (0.011)
Eqipot           0.001    0.001   0.001  0.0002   0.001  -0.0002
                (0.002)  (0.002) (0.002) (0.002) (0.002) (0.002)
XSO2t           -0.0001
               (0.0002)
XSO2t-1        0.0004***
               (0.0001)
XSOt                     -0.0002
                         (0.003)
XSOt-1                   0.005**
                         (0.002)
XWAR2t                           -0.004
                                 (0.011)
XWAR2t-1                          0.007
                                 (0.004)
XWARt                                    0.025
                                        (0.020)
XWARt-1                                  0.019
                                        (0.018)
XWHIP2t                                          0.020
                                                (0.019)
XWHIP2t-1                                        0.002
                                                (0.021)
XWHIPt                                                   0.024
                                                        (0.020)
XWHIPt-1                                                -0.030
                                                        (0.022)
=================================================================
=================================================================
Note:                                *p<0.1; **p<0.05; ***p<0.01

Bateadores: Modelo Pooling
============================================
                    Dependent variable:
               ----------------------------

                     (1)            (2)
--------------------------------------------
Edadt                0.001         0.0003
                    (0.002)        (0.002)
Años contratot      -0.011         -0.011
                    (0.011)        (0.011)
```

```
Eqipot            0.00003        0.0005
                  (0.002)        (0.002)
XBB2t             -0.0002
                  (0.001)
XBB2t-1            0.001
                  (0.0005)
XBBt                              0.003
                                 (0.005)
XBBt-1                            0.002
                                 (0.004)
=========================================
=========================================
Note:           *p<0.1; **p<0.05; ***p<0.01

[1] ""
[1] "Bateos_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 112.41, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Bateos"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 68.033, df = 5, p-value = 2.629e-13
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Carreras_ganadas_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 40.822, df = 5, p-value = 1.019e-07
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Carreras_ganadas"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 4.0421, df = 5, p-value = 0.5434
alternative hypothesis: one model is inconsistent
```

```
[1] ""
[1] "ERA"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 106.44, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Carreras"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 28.166, df = 5, p-value = 3.378e-05
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Comando_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1.3237, df = 5, p-value = 0.9325
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Comando"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 17.236, df = 5, p-value = 0.004074
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Control_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 291.17, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Control"
[1] "Test para cambio estructural entre periodos:"
```

```
    Hausman Test

data:  formula
chisq = 210.26, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Dominio_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 10.813, df = 5, p-value = 0.05521
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Dominio"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 18.944, df = 5, p-value = 0.001969
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Inning_pitched_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 98.225, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Inning_pitched"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 91.178, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Losses_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 119.05, df = 5, p-value < 2.2e-16
```

```
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Strike_outs_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1490.6, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Strike_outs"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 65.845, df = 5, p-value = 7.484e-13
alternative hypothesis: one model is inconsistent

[1] ""
[1] "WAR_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 46.886, df = 5, p-value = 5.993e-09
alternative hypothesis: one model is inconsistent

[1] ""
[1] "WHIP_2"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 29.987, df = 5, p-value = 1.483e-05
alternative hypothesis: one model is inconsistent

[1] ""
[1] "WHIP"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 231.55, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Walks_2"
```

```
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 1425.3, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Walks"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 35.3, df = 5, p-value = 1.311e-06
alternative hypothesis: one model is inconsistent

[1] ""
[1] "Wins"
[1] "Test para cambio estructural entre periodos:"

    Hausman Test

data:  formula
chisq = 586.52, df = 5, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent
```

Efectos aleatorios

Por definición, necesitamos más de un periodo de observación. Por lo tanto, no obtendremos dicho modelo por esa restricción.

Efectos aleatorios

Son equivalentes al pooling debido a que solo obtenemos la estimación para un periodo.

First Differences

Presenta las mismas restricciones que el estimador *within*.