Appendix: Unintended Institutional Interactions: Presidential Coattails and Gender Parity Quotas

A Descriptive Statistics

Table A.1: Descriptive Statistics for Generalized Synthetic Control Analysis

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
% of Female Legislators	448	26.491	11.795	1.400	17.975	36.500	47.300
Mandatory Quota	448	0.040	0.197	0	0	0	1
GDP per capita (log)	448	10.359	0.376	9.536	10.049	10.654	11.122
Female Labor Force	448	45.564	2.198	38.174	44.437	47.192	48.575
Party Quota	448	0.607	0.489	0	0	1	1
CLPR	448	0.201	0.401	0	0	0	1

Sources: % of Female Legislators is from Women in Parliament Dataset (Paxton et al., 2008) and IPU (2020); Mandatory Quota is from Quota Adoption and Reform over Time (Hughes et al., 2019); GDP per capita (log) and Female Labor Force are from WDI; Party Quota and CLPR are coded by the authors using electoral codes and IDEA database.

Table A.2: Descriptive Statistics for Presidential Coattails Analysis

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
A Woman is Elected	3,380	0.189	0.392	0	0	0	1
Presidential Coattails	3,380	0.225	0.418	0	0	0	1
Female Incumbent is Defending	3,380	0.090	0.286	0	0	0	1
Male Incumbent is not Defending	3,380	0.275	0.447	0	0	1	1
Female Incumbent is not Defending	3,380	0.045	0.208	0	0	0	1
% of Female Candidates	3,380	0.342	0.166	0.000	0.222	0.462	0.889
% of Leftist Voters	3,380	35.991	9.294	9.256	29.099	42.279	69.574
Competitiveness	3,380	82.587	17.548	0.000	75.559	94.397	99.981
Runner-up Coattail	3,380	0.315	0.465	0	0	1	1
Left did not enter	3,380	0.010	0.098	0	0	0	1
Left ran at least one woman	3,380	0.605	0.489	0	0	1	1
Center-Left did not enter	3,380	0.107	0.309	0	0	0	1
Center-Left ran at least one woman	3,380	0.530	0.499	0	0	1	1
Center did not enter	3,380	0.770	0.421	0	1	1	1
Center ran at least one woman	3,380	0.089	0.285	0	0	0	1
Center-Right did not enter	3,380	0.019	0.136	0	0	0	1
Center-Right at least one woman	3,380	0.301	0.459	0	0	1	1
Right did not enter	3,380	0.010	0.100	0	0	0	1
Right at least one woman	3,380	0.492	0.500	0	0	1	1

Source: Minitère De L'Intérieur. Authors' calculations.

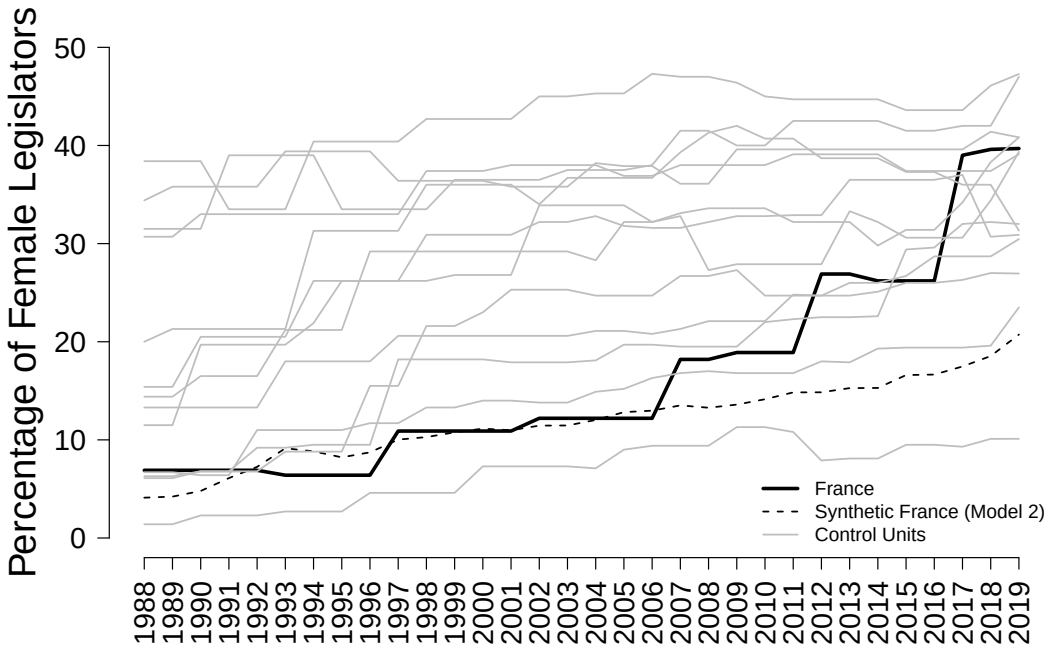
B Complete Results - Generalized Synthetic Control Analysis

Table B.3: Estimated Coefficients for Model 2

Variable	Coefficient
GDP per capita (log)	−0.511 (7.654)
Female Labor Force	0.523 (0.649)
Party Quota	−1.770 (2.805)
CLPR	3.417 (4.165)
Observations	448

Note: Table's entries are coefficients from a GSC model. Standard errors based on parametric bootstraps of 2,000 times in parentheses. *p<0.05; **p<0.01; ***p<0.001.

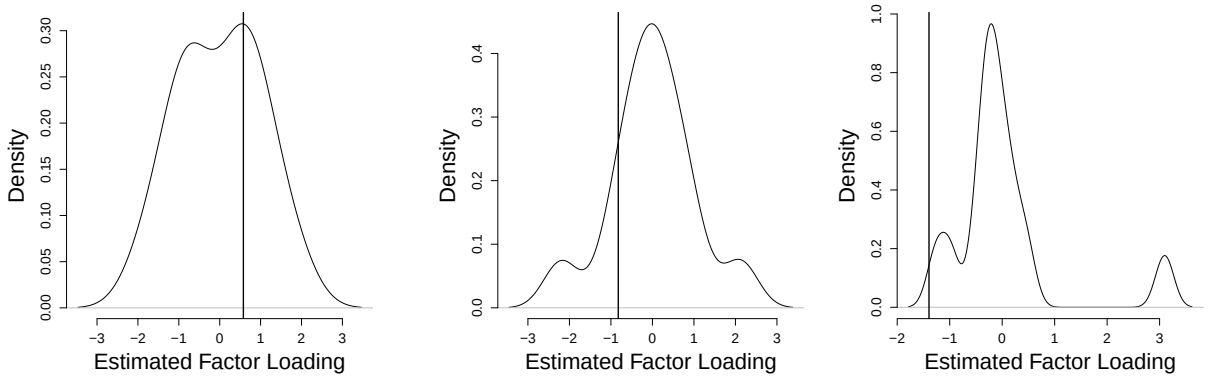
Figure B.1: % of Female Legislators - Real France, Synthetic France (based on Model 2), and Control Units



C Common Support Assumption - GSC

The GSC method relies on modeling assumptions when estimating the counterfactual treated unit (Xu, 2017). Specifically, because the factor loadings for the treated unit are estimated based on the control units, it is important to check whether treated and control units share common support in factor loadings. Figures C.2 and C.3 show the density curves for each of the estimated loading from models 1 and 2. The vertical line indicates where the estimated factor loadings for France lie in the distributions. We observe that for all loadings in both models, France's loadings are located within the distribution of factor loadings for the control units. Moreover, except for factor loading 3 from model 1, the estimated loadings for France are located closer to the center of the distribution. As a result, we can conclude that the models are not extrapolating when estimating the counterfactual scenario.

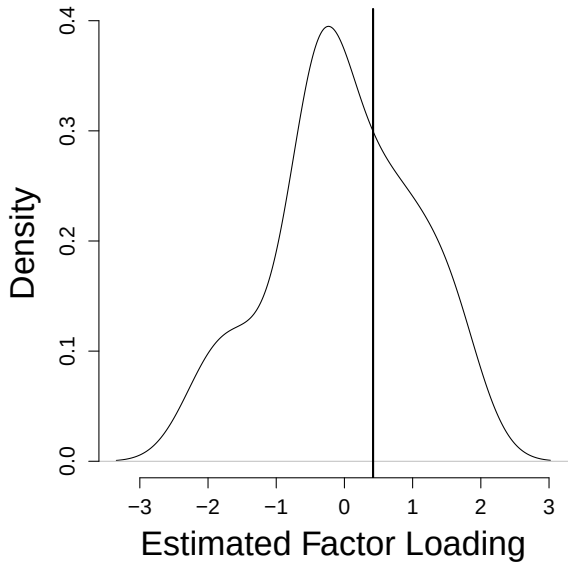
Figure C.2: Estimated Factor Loadings from Model 1 - Without Controls



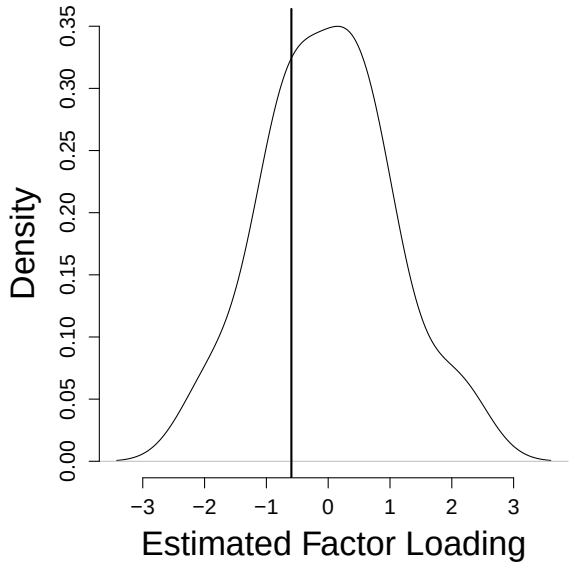
(a) Factor Loading 1 (b) Factor Loading 2 (c) Factor Loading 3

Note: Vertical line represents France.

Figure C.3: Estimated Factor Loadings from Model 2 - With Controls



(a) Factor Loading 1



(b) Factor Loading 2

Note: Vertical line represents France.

D Complete Results - Presidential Coattails

Table D.4: Presidential Coattails and Female Representation–France Legislative Elections, 1993-2017

	Dependent variable:
	A Woman is Elected
Presidential Coattails	−0.861 (0.542)
1997 Election	0.608* (0.305)
2002 Election	−1.514*** (0.389)
2007 Election	−0.543 (0.364)
2012 Election	−1.034** (0.388)
2017 Election	−0.231 (0.409)
Presidential Coattails X 1997	−0.952 (0.835)
Presidential Coattails X 2002	3.126*** (0.623)
Presidential Coattails X 2007	1.484* (0.588)
Presidential Coattails X 2012	3.293*** (0.632)
Presidential Coattails X 2017	3.886*** (0.842)
Female Incumbent is Defending	3.260*** (0.230)
Male Incumbent is Not Defending	1.152*** (0.146)
Female Incumbent is Not Defending	2.703*** (0.245)
% of Female Candidates	0.991 (0.566)
% of Leftist Voters	0.023* (0.010)
Competitiveness	0.016*** (0.004)
Left did not enter	1.635** (0.516)
Left nominated at least one woman	1.153*** (0.174)
Center-Left did not enter	0.374 (0.262)
Center-Left nominated at least one woman	−0.086 (0.158)
Center did not enter	1.688*** (0.313)
Center nominated at least one woman	1.757** (0.571)
Center-Right did not enter	−0.092 (0.519)
Center-Right nominated at least one woman	1.072*** (0.174)
Right did not enter	−0.011 (0.798)
Right nominated at least one woman	0.146 (0.160)
Constant	−8.117*** (0.759)
Observations	3,380
Log Likelihood	−926.635
Akaike Inf. Crit.	1,909.270

Note: Table's entries are coefficients from a logit model. Clustered robust standard errors by electoral district in parentheses. Left, Center-left, Center, Center-Right, and Right nominated only men are the reference categories. *p<0.05; **p<0.01; ***p<0.001.

E Robustness Checks - Presidential Coattails

Table E.5: Presidential Coattails and Female Representation–France Legislative Elections, 1993-2017 with Including District FE

	Dependent variable:
	A Woman is Elected
Presidential Coattail	−0.554 (0.967)
1997 Election	0.702 (0.532)
2002 Election	−1.737* (0.778)
2007 Election	−0.470 (0.701)
2012 Election	−0.186 (0.747)
2017 Election	0.330 (0.931)
Presidential Coattails X 1997	−1.681 (1.377)
Presidential Coattails X 2002	3.794*** (1.116)
Presidential Coattails X 2007	2.240* (1.071)
Presidential Coattails X 2012	3.676** (1.249)
Presidential Coattails X 2017	7.192*** (1.707)
Female Incumbent is Defending	1.418** (0.434)
Male Incumbent is Not Defending	1.627*** (0.316)
Female Incumbent is Not Defending	−0.019 (0.470)
% of Female Candidates	1.943 (1.303)
% of Leftist Voters	0.001 (0.039)
Competitiveness	0.003 (0.009)
Left did not enter	0.940 (1.175)
Left nominated at least one woman	1.113** (0.361)
Center-Left did not enter	0.550 (0.673)
Center-Left nominated at least one woman	−0.293 (0.323)
Center did not enter	2.184*** (0.618)
Center nominated at least one woman	1.227 (1.071)
Center-Right did not enter	−1.253 (2.131)
Center-Right nominated at least one woman	1.833*** (0.400)
Right did not enter	−0.879 (1.984)
Right nominated at least one woman	−0.004 (0.347)
Constant	−24.221*** (2.350)
District FE	Yes
Observations	3,380
Log Likelihood	−498.251
Akaike Inf. Crit.	2,270.502

Note: Table's entries are coefficients from a logit model with fixed effects by district. Clustered robust standard errors by electoral district in parentheses. Left, Center-left, Center, Center-Right, and Right nominated only men are the reference categories. *p<0.05; **p<0.01; ***p<0.001.

Table E.6: Presidential Coattails and Female Representation–France Legislative Elections, 1993-2017 with District FE (Linear Model)

	Dependent variable:
	A Woman Wins the District
Presidential Coattail	−0.073 (0.042)
1997 Election	0.029 (0.024)
2002 Election	−0.081* (0.038)
2007 Election	−0.053 (0.036)
2012 Election	−0.032 (0.027)
2017 Election	0.043 (0.050)
Presidential Coattails X 1997	−0.091 (0.097)
Presidential Coattails X 2002	0.295*** (0.057)
Presidential Coattails X 2007	0.233*** (0.054)
Presidential Coattails X 2012	0.382*** (0.053)
Presidential Coattails X 2017	0.601*** (0.071)
Female Incumbent is Defending	0.183*** (0.032)
Male Incumbent is Not Defending	0.099*** (0.013)
Female Incumbent is Not Defending	0.031 (0.035)
% of Female Candidates	0.087 (0.057)
% of Leftist Voters	0.001 (0.002)
Competitiveness	0.001 (0.0004)
Left did not enter	0.023 (0.068)
Left nominated at least one woman	0.052*** (0.015)
Center-Left did not enter	0.053* (0.025)
Center-Left nominated at least one woman	−0.020 (0.014)
Center did not enter	0.145*** (0.028)
Center nominated at least one woman	0.083 (0.046)
Center-Right did not enter	0.005 (0.048)
Center-Right nominated at least one woman	0.109*** (0.020)
Right did not enter	−0.063 (0.079)
Right nominated at least one woman	0.016 (0.016)
District FE	Yes
Observations	3,380
R^2	0.574
Adjusted R^2	0.475
Residual Std. Error	0.284 (df = 2743)

Note: Table's entries are coefficients from a linear model with fixed effects by district. Clustered robust standard errors by electoral district in parentheses. Left, Center-left, Center, Center-Right, and Right nominated only men are the reference categories. *p<0.05; **p<0.01; ***p<0.001.

Table E.7: Runner Up Coattail and Female Representation–France Legislative Elections, 1993-2017

	Dependent variable:
	Woman is elected
Runner up Coattails	4.553^{***} (0.967)
1997 Election	-0.189 (0.467)
2002 Election	0.647 (0.423)
2007 Election	0.261 (0.424)
2012 Election	1.398^{***} (0.385)
2017 Election	1.471^{***} (0.412)
Runner up Coattails X 1997	-1.321 (0.999)
Runner up Coattails X 2002	-4.453^{***} (1.019)
Runner up Coattails X 2007	-3.461^{***} (1.009)
Runner up Coattails X 2012	-4.872^{***} (1.011)
Runner up Coattails X 2017	-4.399^{***} (1.009)
Female Incumbent is Defending	3.184^{***} (0.214)
Male Incumbent is Not Defending	1.168^{***} (0.141)
Female Incumbent is Not Defending	2.404^{***} (0.231)
% of Female Candidates	0.877 (0.551)
% of Leftist Voters	0.027^{**} (0.010)
Competitiveness	0.016^{***} (0.004)
Left did not enter	1.805^{***} (0.541)
Left nominated at least one woman	0.944^{***} (0.188)
Center-Left did not enter	-0.149 (0.292)
Center-Left nominated at least one woman	-0.065 (0.146)
Center did not enter	2.042^{***} (0.324)
Center nominated at least one woman	4.308^{***} (0.297)
Center-Right did not enter	0.024 (0.566)
Center-Right nominated at least one woman	1.205^{***} (0.158)
Right did not enter	0.050 (0.675)
Right nominated at least one woman	0.077 (0.159)
Constant	-9.526^{***} (0.804)
Observations	3,380
Log Likelihood	-944.899
Akaike Inf. Crit.	1,945.798

Note: Table's entries are coefficients from a logit model. Clustered robust standard errors by electoral district in parentheses. Left, Center-left, Center, Center-Right, and Right nominated only men are the reference categories. *p<0.05; **p<0.01; ***p<0.001.

F Candidate Level

Table F.8: Presidential Coattails and Election–France Legislative Elections, 1993-2017

	Dependent variable:
	Candidate is Elected
Presidential Coattails	-2.480^{***} (0.216)
1997 Election	-0.626^{***} (0.046)
2002 Election	-2.055^{***} (0.072)
2007 Election	-1.040^{***} (0.065)
2012 Election	-1.384^{***} (0.075)
2017 Election	-1.491^{***} (0.085)
Presidential Coattails X 1997	1.889^{***} (0.269)
Presidential Coattails X 2002	6.525^{***} (0.278)
Presidential Coattails X 2007	4.890^{***} (0.283)
Presidential Coattails X 2012	5.914^{***} (0.265)
Presidential Coattails X 2017	6.761^{***} (0.291)
Incumbent	3.444^{***} (0.083)
Woman	-0.777^{***} (0.076)
Constant	-1.781^{***} (0.041)
District FE	Yes
Observations	25,237
Log Likelihood	$-5,889.508$
Akaike Inf. Crit.	13,025.020

Note: Table's entries are coefficients from a logit model with district fixed effects. Clustered robust standard errors by electoral district in parentheses. Left, Center-left, Center, Center-Right, and Right nominated only men are the reference categories. *p<0.05; **p<0.01; ***p<0.001.

Table F.9: Presidential Coattails given the Candidate's Gender and Election–France Legislative Elections, 1993-2017

	Dependent variable:
	Candidate is Elected
Presidential Coattails (Female)	-1.798^{*} (0.784)
Presidential Coattails (Male)	-1.704^{***} (0.299)
Non-Presidential Party (Male)	0.818^{***} (0.212)
1997 Election	-0.167 (0.243)
2002 Election	-2.237^{***} (0.249)
2007 Election	-1.073^{***} (0.229)
2012 Election	-1.354^{***} (0.264)
2017 Election	-1.275^{***} (0.248)
Presidential Coattails (Female) X 1997	0.248 (1.056)
Presidential Coattails (Female) X 2002	5.552^{***} (0.886)
Presidential Coattails (Female) X 2007	3.904^{***} (0.833)
Presidential Coattails (Female) X 2012	5.181^{***} (0.836)
Presidential Coattails (Female) X 2017	6.051^{***} (0.842)
Presidential Coattails (Male) X 1997	1.514^{***} (0.371)
Presidential Coattails (Male) X 2002	6.915^{***} (0.372)
Presidential Coattails (Male) X 2007	5.108^{***} (0.376)
Presidential Coattails (Male) X 2012	5.990^{***} (0.394)
Presidential Coattails (Male) X 2017	6.400^{***} (0.398)
Non-Presidential Party (Male) X 1997	-0.541^{*} (0.273)
Non-Presidential Party (Male) X 2002	0.234 (0.277)
Non-Presidential Party (Male) X 2007	0.055 (0.259)
Non-Presidential Party (Male) X 2012	-0.028 (0.290)
Non-Presidential Party (Male) X 2017	-0.302 (0.283)
Incumbent	3.442^{***} (0.084)
Constant	-2.632^{***} (0.201)
District FE	Yes
Observations	25,237
Log Likelihood	$-5{,}875.007$
Akaike Inf. Crit.	13,018.010

Note: Table's entries are coefficients from a logit model with district fixed effects. Clustered robust standard errors by electoral district in parentheses. Left, Center-left, Center, Center-Right, and Right nominated only men are the reference categories. *p<0.05; **p<0.01; ***p<0.001.

G Percentage of Women Nominated

Table G.10: Percentage of Women Nominated by Presidential and Runner-up Parties

Party	1993	1997	2002	2007	2012	2017
La République En Marche!	–	–	–	–	–	50.427
National Front	11.913	12.072	48.759	48.921	48.699	49.212
RPR/UPM/The Republicans	6.289	7.343	19.815	27.072	24.947	39.085
Socialist Party	8.285	27.859	36.129	45.681	46.833	44.068

Note: Data from French Electoral Returns (*data.gouv.fr*).

Table G.11: Percentage of Women Nominated by Ideological Position

Ideology	1993	1997	2002	2007	2012	2017
Left	12.477	27.308	45.153	46.273	47.423	46.331
Center-left	12.461	27.654	43.741	48.259	46.168	46.107
Center	19.084	–	–	–	30.612	50.427
Center-right	6.349	8.543	19.786	31.791	32.077	40.230
Right	11.913	12.072	44.491	49.465	48.699	47.664

Note: Data from French Electoral Returns (*data.gouv.fr*). Ideological classification by the authors.

Table G.12: French Parties and Ideology–Coded by the authors

Party	Ideology
The Greens	Center-left
Rally for the Republic/Union for a Popular Movement/The Republicans	Center-right
French Communist Party	Left
National Front	Right
Socialist Party	Left
Ecology Generation	Center
Union for French Democracy/Centre for France/Democratic Movement	Center-right
Radical Party of the Left	Center-left
Radical Party/Radical-Socialist Party	Center-right
Ecologists	Center-left
Movement for France	Right
Hunting, Fishing, Nature, Traditions	Right
Republican Pole	Left
Revolutionary Communist League	Left
National Republican Movement	Right
Workers Struggle	Left
Rally for France	Right
Liberal Democracy	Center-right
New Centre	Center-right
Left Front	Left
Europe Ecology – The Greens	Center-left
Centrist Alliance	Center
La France Insoumise	Left
Debout la France	Right
La République En Marche!	Center
Union of Democrats and Independents	Center-right

H Generalized Synthetic Control Analysis - Additional Models

H.1 Donor Pool: Non-presidential countries and no quotas

In this subsection, we present the results for a synthetic control model in which we only include non-presidential countries that do not have quotas and are part of the OECD in the donor pool. These countries are: Austria, Australia, Canada, Denmark, Finland, Germany, Japan, New Zealand, Norway, Sweden, the Netherlands, and the United Kingdom. Note that because of the removal of the United States from the donor pool, our synthetic France does not account for the possibility of a presidential coattail effect. As a result, the treatment in this analysis is a compounded one (gender quotas and presidential coattails).

The results in Table H.13 shows an average treatment effect on the treated equal to 8.071, meaning that female representation increased in France after the adoption of gender quotas and the change in the electoral calendar.

Table H.13: Estimated ATT and Coefficients for Generalized Synthetic Model, excluding the United States from the donor pool

Gender Quotas	8.071* (4.704)
Control Variables	
GDP per capita (log)	0.113 (8.351)
Female Labor Force	0.604 (0.695)
Party Quota	−1.828 (3.812)
CLPR	3.443 (3.832)
Time-varying Covariates	Yes
Country Fixed Effects	Yes
Year Fixed Effects	Yes
Unobserved (Latent) Factors	2
Observations	416

Note: Table's entries are coefficients from a GSC model. Standard errors based on parametric bootstraps of 2,000 times in parentheses. *p<0.05; **p<0.01; ***p<0.001.

H.2 Donor Pool: Non-presidential countries

In this subsection, we present the results for a synthetic control model in which we only include non-presidential countries that are part of the OECD in the donor pool. Unlike the previous analysis and the one in the main paper, we do not exclude from the donor pool those countries that adopted gender quotas. As a result, the treatment in this analysis is solely the change in the French electoral calendar. The countries included in our donor pool are: Australia, Austria, Belgium, Canada, Denmark, Finland, Germany, Greece, Ireland, Italy, Japan, New Zealand, Norway, Portugal, Spain, Sweden, the Netherlands, and the United Kingdom. Because we allow for the inclusion of countries that have gender quotas in the donor pool, we also include an indicator for mandatory quotas among the covariates in the model.

The results in Table H.14 shows an average treatment effect on the treated equal to -1.021. However, the estimate is statistically insignificant. Therefore, our synthetic France, where quotas were adopted but the calendar was not changed, is not different from the real France, where quotas were adopted and the calendar was not changed. Note that these results should be interpreted with a grain of salt. Specifically, given that there are no presidential country where legislative and presidential elections are not close in time among OECD members, our donor pool is unlikely the best one.

Table H.14: Estimated ATT and Coefficients for Generalized Synthetic Model, using only parliamentary countries in the donor pool

Presidential Coattail	−1.021 (6.529)
Control Variables	
GDP per capita (log)	3.451 (6.228)
Female Labor Force	0.481 (0.475)
Party Quota	−2.252 (3.039)
CLPR	1.850 (2.229)
Quota	1.378 (2.110)
Time-varying Covariates	Yes
Country Fixed Effects	Yes
Year Fixed Effects	Yes
Unobserved (Latent) Factors	3
Observations	608

Note: Table's entries are coefficients from a GSC model. Standard errors based on parametric bootstraps of 2,000 times in parentheses. *p<0.05; **p<0.01; ***p<0.001.