

Supplementary File

Annex 1. Adjustment of Input Variables

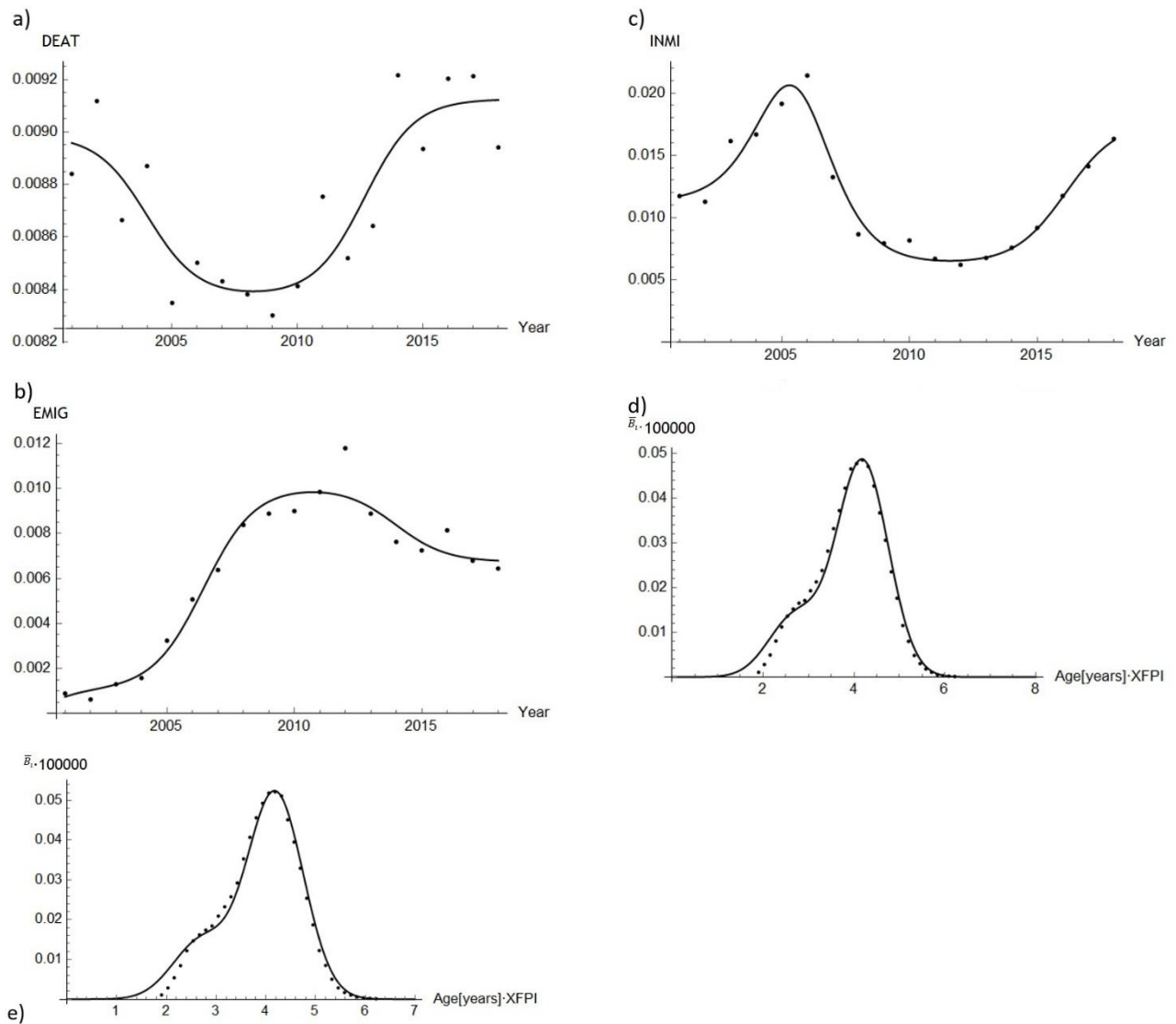


Figure A1.1. Adjustment of Demographic Input Variables (2008-2019). a) DEAT=Crude mortality rate, $R^2= 0.76436$; b) EMIG=Crude mortality rate, $R^2= 0.95710$; c) INMI=Crude immigration rate, $R^2=0.95388$; d) \bar{B}_t = Ratio between specific fertility rates by age of the mother and defined by sex of the child born and births (i = female), $R^2=0.988413$; e) \bar{B}_t = Ratio between specific fertility rates by age of the mother and defined by sex of the child born and births (i = male), $R^2=0.98804$. Points: historical values. Lines: simulated values. Source: own elaboration

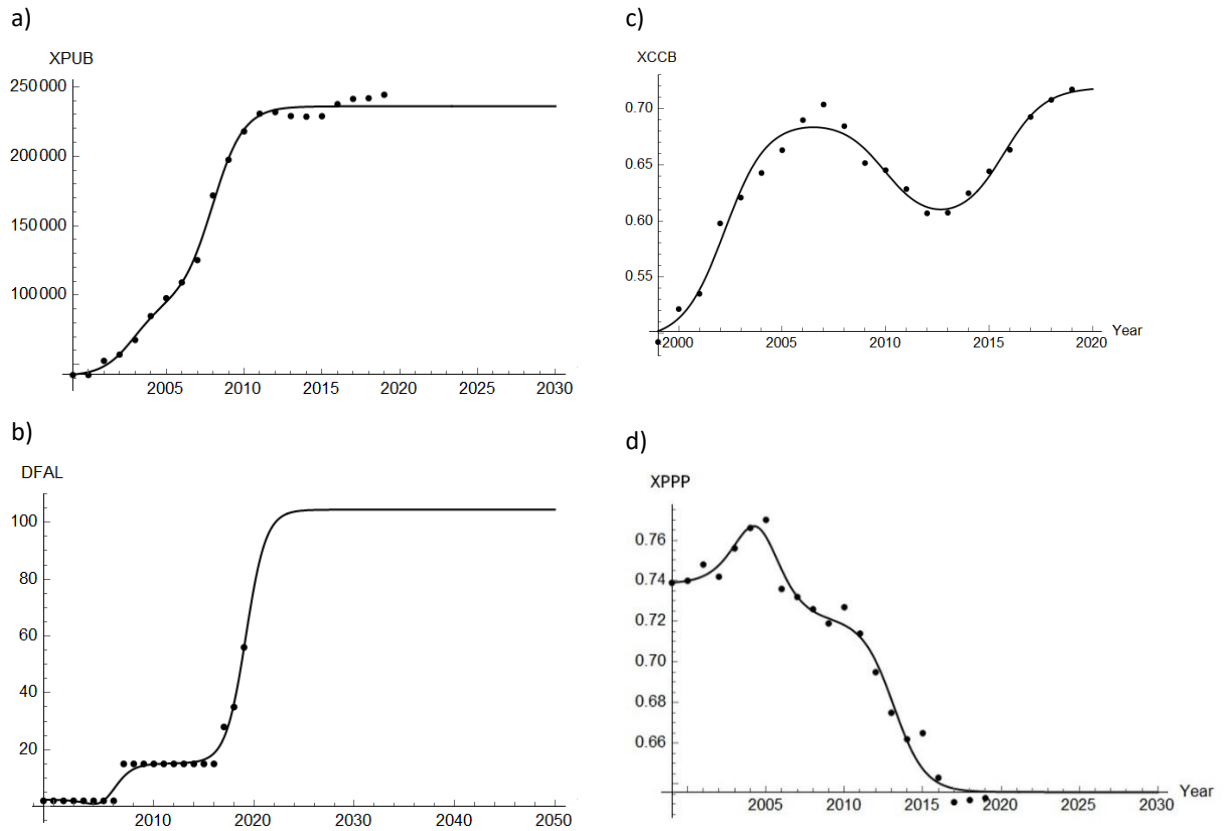


Figure A.1.2. Adjustment of Family Policy Input Variables (2008-2019). a) XPUB=Public places in public schools, $R^2=0.97655$; b) DFAL= Days of parental leave corresponding to the father, $R^2=0.93723$; c) XCCB=Coverage of *Child Benefit*, $R^2=0.98163$; d) XPPP=Purchasing Power Parity, $R^2=0.87082$. Points: historical values. Lines: simulated values. Source: own elaboration.

Annex 2. Validation of the model. Demographic variables

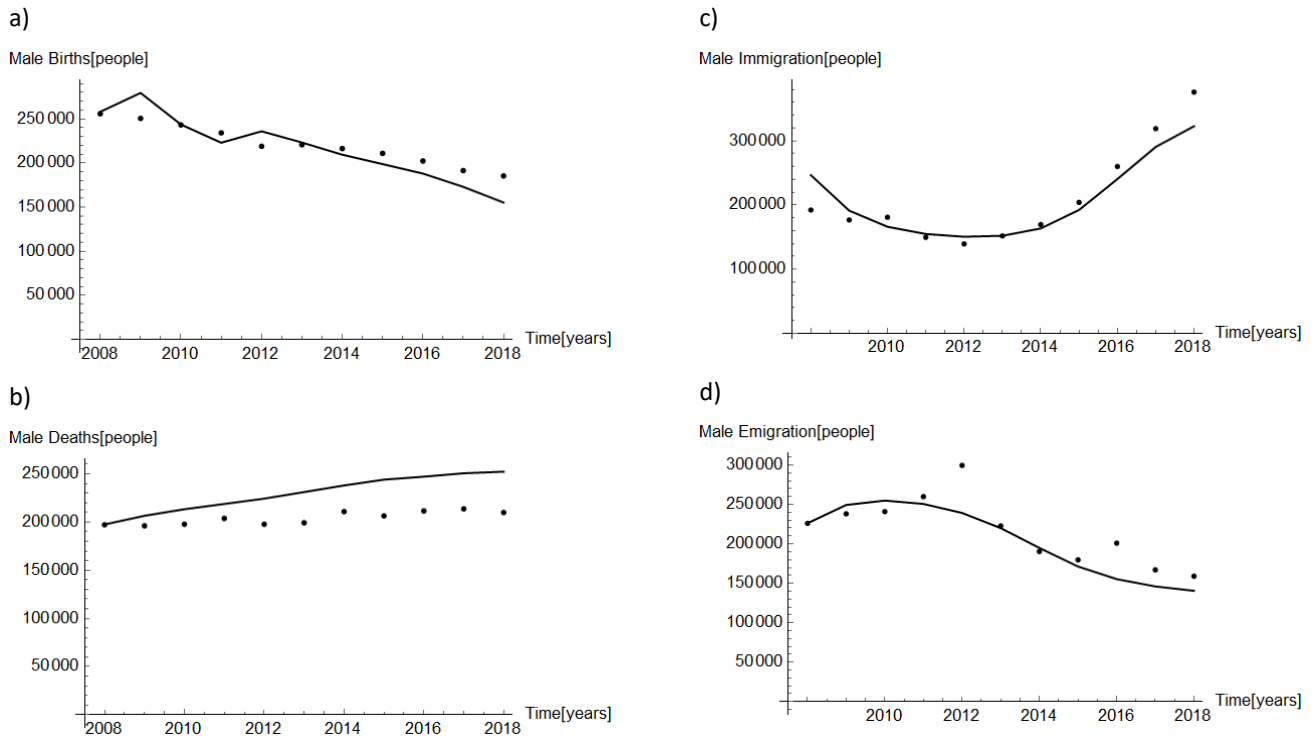


Figure A2.1. Validation of the model with male demographic variables (2008-2019). a) Births, $R^2= 0.90541$; b) Deaths, $R^2= 0.75705$; c) Immigration, $R^2=0.95883$; d) Emigration, $R^2=0.73911$. Points: historical values. Lines: simulated values. Source: own elaboration.

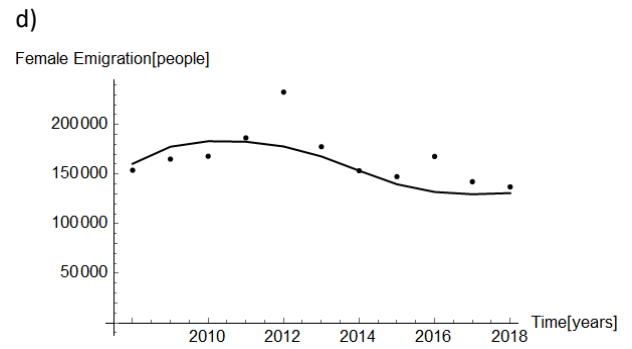
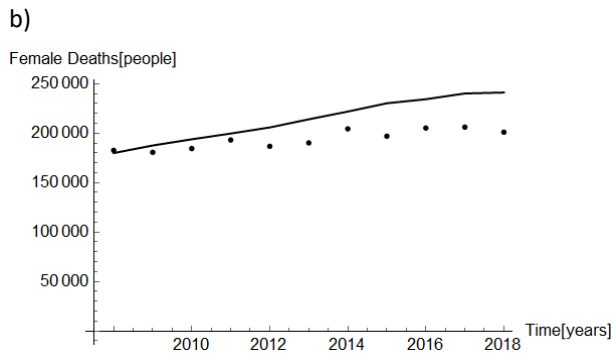
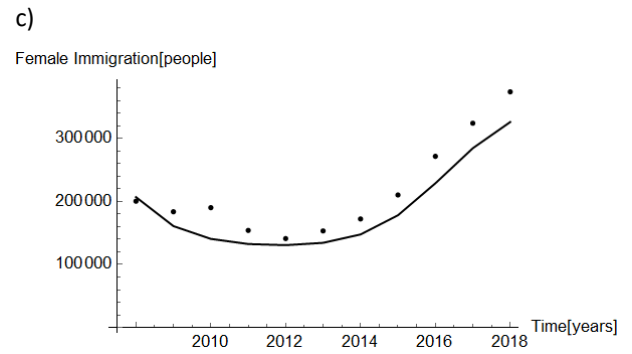
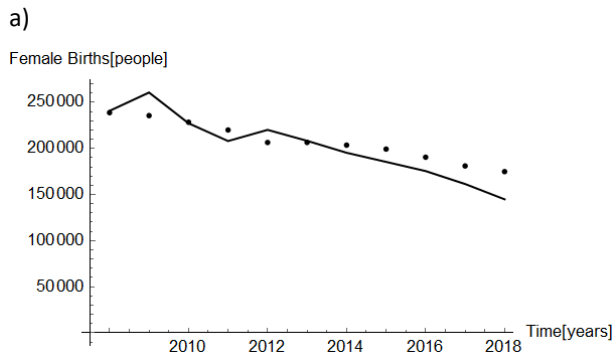


Figure A2.2. Validation of the model with female demographic variables (2008-2019). a) Births, $R^2=0.91067$; b) Deaths, $R^2=0.82069$; c) Immigration, $R^2=0.89470$; d) Emigration, $R^2=0.42598$. Points: historical values. Lines: simulated values. Source: own elaboration.

Annex 3. Input variables used for the genetic algorithms

Acronyms	Definition
<i>DFAL</i>	Days of parental leave corresponding to the father ¹
<i>DMAL</i>	Days of parental leave corresponding to the mother ¹
<i>DPLS</i>	Divisible part in the parental leaves ¹
<i>ECBG</i>	Monetary value of <i>Birth Grant</i> in PPP
<i>ECCB</i>	Monetary value of <i>Child Benefit</i> in PPP ¹
<i>ECCC</i>	Monetary value of <i>Cash for Care</i> in PPP
<i>OVLP</i>	Simultaneity or not of the parental leaves ¹
<i>TICB</i>	Length of <i>Child Benefit</i> ¹
<i>TICC</i>	Length of <i>Cash for Care</i> ¹
<i>XCBG</i>	Coverage of <i>Birth Grant</i>
<i>XCCB</i>	Coverage of <i>Child Benefit</i> ^a
<i>XPPP</i>	Purchasing Power Parity
<i>XPUB</i>	Public places in public schools ¹

Note: Own elaboration.