

$$\begin{aligned}
& (0.102) \\
& +0.7098 \times \text{DLNUNIV}(-1) + 0.0604 \times \text{DLNOPMCOST}(-1) \\
& \quad (3.220) \quad (2.351) \\
& \text{adjR}^2 : 0.310, \text{SSR} : 0.011, \text{S.E.} : 0.023, \text{AIC} : -4.562, \text{SBIC} : -4.320, 1979-2004 \\
& \text{共和分検定 } H_0 : \text{None} \quad \text{Trace} = 41.39^* \quad \text{Max Eigen.} = 26.53^* \quad \text{lag} = 1
\end{aligned}$$

$$\begin{aligned}
\text{DLNMR2529} &= 0.0145 - 0.0580 \times (\text{LNMR2529}(-1) - 0.3195 \times \text{PWAGEF}(-1) - 0.0808 \times \\
& \quad (2.736) (-5.619) \\
& \quad \text{URM2529}(-1) - 2.837 - 0.2994 \times \text{DLNMR2529}(-1) - 0.0010 \times \text{DPWAGEF}(-1) \\
& \quad \quad (-1.765) \quad (-0.268) \\
& -0.0147 \times \text{DURM2529}(-1) \\
& \quad (-0.983) \\
& \text{adjR}^2 : 0.653, \text{SSR} : 0.009, \text{S.E.} : 0.021, \text{AIC} : -4.721, \text{SBIC} : -4.479, 1979-2004 \\
& \text{共和分検定 } H_0 : \text{None} \quad \text{Trace} = 46.87^* \quad \text{Max Eigen.} = 32.82^* \quad \text{lag} = 1
\end{aligned}$$

$$\begin{aligned}
\text{DLNMR3034} &= 0.0345 - 0.0092 \times \text{DPWAGEF} + 0.0088 \times \text{DURF3034} \\
& \quad (2.820) \quad (-1.241) \quad (0.553) \\
& + 0.2421 \times \text{DLNMR3034}(-1) + 0.0013 \times \text{DPWAGEF}(-1) \\
& \quad (1.137) \quad (0.199) \\
& - 0.0188 \times \text{DURF3034}(-1) \\
& \quad (-1.061) \\
& \text{R}^2 : 0.179, \text{SSR} : 0.023, \text{S.E.} : 0.034, 1979-2004
\end{aligned}$$

$$\begin{aligned}
\text{DLNMR3539} &= 0.0365 - 0.0186 \times \text{DPWAGEF} - 0.0319 \times \text{DURF3539} \\
& \quad (2.765) \quad (-2.031) \quad (-1.058) \\
& + 0.2150 \times \text{DLNMR3539}(-1) + 0.0027 \times \text{DPWAGEF}(-1) \\
& \quad (0.995) \quad (0.381) \\
& + 0.0314 \times \text{DURF3539}(-1) \\
& \quad (1.102) \\
& \text{R}^2 : 0.209, \text{SSR} : 0.034, \text{S.E.} : 0.041, 1979-2004
\end{aligned}$$

$$\text{LNMR2024} = \text{LNMR2024}(-1) + \text{DLNMR2024}$$

$$\text{LNMR2529} = \text{LNMR2529}(-1) + \text{DLNMR2529}$$

$$\text{LNMR3034} = \text{LNMR3034}(-1) + \text{DLNMR3034}$$

$$\text{LNMR3539} = \text{LNMR3539}(-1) + \text{DLNMR3539}$$

$$\text{MR2024} = \exp(\text{LNMR2024})$$

$$\text{MR2529} = \exp(\text{LNMR2529})$$

$$\text{MR3034} = \exp(\text{LNMR3034})$$

$$\text{MR3539} = \exp(\text{LNMR3539})$$

出生ブロック

$$\begin{aligned}
\text{DLNBR2024} &= -0.0069 - 0.0117 \times (\text{LNBR2024}(-1) + 0.6826 \times \text{LNOPCOST}(-1) - 0.0760 \times \\
& \quad (-0.621) (-0.196) \\
& \quad \text{PWAGE}(-1) - 10.393) + 0.2638 \times \text{DLNBR2024}(-1) + 0.0229 \times \text{DLNOPCOST}(-1) \\
& \quad \quad (1.232) \quad (0.650) \\
& + 0.0020 \times \text{DPWAGE}(-1) + 0.4398 \times \text{DLNMR2024}(-1) \\
& \quad (-0.342) \quad (1.812) \\
& \text{adjR}^2 : 0.100, \text{SSR} : 0.019, \text{S.E.} : 0.031, \text{AIC} : -3.940, \text{SBIC} : -3.650, 1979-2004
\end{aligned}$$

共和分検定 H_0 : None Trace= 30.99* Max Eigen.=20.94 lag=2

$$\begin{aligned} \text{DLNBR2529} = & -0.0356 - 0.0291 \times (\text{LNBR2529}(-1)) + 2.065 \times \text{LNOPCOST}(-1) - 0.02704 \times \\ & (-4.355) (-2.216) \\ & \text{PWAGE}(-1) - 25.053 - 0.115 \times \text{DLNBR2529}(-1) + 0.032 \times \text{DLNOPCOST}(-1) \\ & (-0.552) (1.151) \\ & - 0.0038 \times \text{DPWAGE}(-1) + 0.1595 \times \text{DLNMR2529}(-1) \\ & (-0.939) (1.080) \end{aligned}$$

adjR² : 0.179, SSR : 0.011, S.E. : 0.023, AIC : -4.515, SBIC : -4.225, 1979-2004
共和分検定 H_0 : None Trace= 32.89* Max Eigen.=23.67* lag=2

$$\begin{aligned} \text{DLNBR3034} = & 0.0171 - 0.3782 \times (\text{LNBR3034}(-1)) - 0.0700 \times \text{LNMR3034}(-1) \\ & (1.445) (-3.457) \\ & + 0.0620 \times \text{URM3034}(-1) - 0.4153 \times \text{LNHOIKU}(-1) - 3.9923 \\ & - 0.03276 \times \text{DLNBR3034}(-1) + 0.0608 \times \text{DLNMR3034}(-1) \\ & (-0.185) (0.358) \\ & + 0.002 \times \text{DURM3034}(-1) - 0.5761 \times \text{DLNHOIKU}(-1) \\ & (0.075) (-2.053) \end{aligned}$$

adjR² : 0.234, SSR : 0.013, S.E. : 0.026, AIC : -4.273, SBIC : -3.983, 1979-2004
共和分検定 H_0 : None Trace= 78.33* Max Eigen.=44.56* lag=1

$$\begin{aligned} \text{DLNBR3539} = & 0.0443 - 0.4178 \times (\text{LNBR3539}(-1)) - 0.6782 \times \text{LNMR3539}(-1) + 0.0768 \times \\ & (2.912) (-3.509) \\ & \text{URM3539}(-1) - 0.6395 \times \text{LNHOIKU}(-1) - 1.7184 + 0.2107 \times \text{DLNBR3539}(-1) \\ & (1.115) \\ & - 0.0572 \times \text{DLNMR3539}(-1) + 0.005 \times \text{DURM3539}(-1) \\ & (-0.346) (0.217) \\ & - 0.5687 \times \text{DLNHOIKU}(-1) \\ & (-1.795) \end{aligned}$$

adjR² : 0.358, SSR : 0.019, S.E. : 0.031, AIC : -3.930, SBIC : -3.640, 1979-2004
共和分検定 H_0 : None Trace= 60.28* Max Eigen.=37.43* lag=1

$$\text{LNBR2024} = \text{LNBR2024}(-1) + \text{DLNBR2024}$$

$$\text{LNBR2529} = \text{LNBR2529}(-1) + \text{DLNBR2529}$$

$$\text{LNBR3034} = \text{LNBR3034}(-1) + \text{DLNBR3034}$$

$$\text{LNBR3539} = \text{LNBR3539}(-1) + \text{DLNBR3539}$$

$$\text{BR2024} = \exp(\text{LNBR2024})$$

$$\text{BR2529} = \exp(\text{LNBR2529})$$

$$\text{BR3034} = \exp(\text{LNBR3034})$$

$$\text{BR3539} = \exp(\text{LNBR3539})$$

$$\begin{aligned} \text{TFR} = & 0.0655 + 0.00491 \times (\text{BR2024} + \text{BR2529} + \text{BR3034} + \text{BR3539}) \\ & (3.78) (87.00) \end{aligned}$$

adjR² : 0.996, SSR : 0.003, S.E. : 0.011, 1977-2004

出生と結婚の機会コスト

$$\begin{aligned} \text{DLNOPCOST} = & 0.7843 \times \text{DLNOPCOST}(-1) - 0.1711 \times \text{DLNOPCOST}(-2) \\ & (1.329) (-0.257) \end{aligned}$$

$$-1.3812 \times \text{DLNOPMCOST}(-1) - 0.0411 \times \text{DLNOPMCOST}(-2) + 0.0413$$

(-1.882) (-0.053) (0.879)

adjR² : 0.052, SSR : 0.822, S.E. : 0.203, AIC : -0.177, SBIC : 0.066, 1980-2004

$$\text{DLNOPMCOST} = 0.4694 \times \text{DLNOPCOST}(-1) - 0.4283 \times \text{DLNOPCOST}(-2)$$

(0.985) (-0.796)

$$- 0.955 \times \text{DLNOPMCOST}(-1) + 0.3750 \times \text{DLNOPMCOST}(-2) + 0.0474$$

(-1.611) (0.593) (1.249)

adjR² : 0.103, SSR : 0.536, S.E. : 0.164, AIC : -0.605, SBIC : -0.362, 1980-2004

$$\text{LNOPCOST} = \text{LNOPCOST}(-1) + \text{DLNOPCOST}$$

$$\text{LNOPMCOST} = \text{LNOPMCOST}(-1) + \text{DLNOPMCOST}$$

労働市場ブロック

$$\text{PWAGE} = 0.1547 + 37.31 \times \text{GDPNG}(-1) + 21.46 \times \text{GDPNG}(-2)$$

(0.586) (4.014) (2.440)

adjR² : 0.846, SSR : 17.678, S.E. : 0.878, 1979-2004

$$\text{PWAGEF} = 1.0216 + 27.084 \times \text{GDPNG}(-1) + 22.82 \times \text{GDPNG}(-2)$$

(4.573) (3.447) (3.071)

adjR² : 0.848, SSR : 12.634, S.E. : 0.741, 1979-2004

$$\text{DPWAGE} = \text{PWAGE} - \text{PWAGE}(-1)$$

$$\text{DPWAGEF} = \text{PWAGEF} - \text{PWAGEF}(-1)$$

$$\text{DURF3034} = 0.0877 - 0.1570 \times \text{DPWAGEF} + 0.0097 \times \text{DPWAGEF}(-1)$$

(0.933) (-1.736) (0.126)

adjR² : 0.040, SSR : 4.538, S.E. : 0.444, 1979-2004

$$\text{DURF3539} = 0.0971 - 0.1056 \times \text{DPWAGEF}$$

(1.613) (-2.062)

adjR² : 0.111, SSR : 2.239, S.E. : 0.299, 1978-2004

$$\text{DURM2529} = 0.0867 + 0.3874 \times \text{DURM2529}(-1) - 0.1138 \times \text{DPWAGE}$$

(1.255) (1.969) (-1.990)

$$+ 0.0392 \times \text{DPWAGE}(-1)$$

(0.728)

adjR² : 0.193, SSR : 1.958, S.E. : 0.298, 1979-2004

$$\text{DURM3034} = 0.0966 - 0.0414 \times \text{DPWAGE}$$

(1.928) (-1.000)

adjR² : 0.000, SSR : 1.532, S.E. : 0.248, 1979-2004

$$\text{DURM3539} = 0.0620 - 0.0717 \times \text{DPWAGE}$$

(1.111) (-1.553)

adjR² : 0.051, SSR : 1.905, S.E. : 0.276, 1979-2004

$$\text{URM2529} = \text{URM2529}(-1) + \text{DURM2529}$$

$$\text{URM3034} = \text{URM3034}(-1) + \text{DURM3034}$$

$$\text{URM3539} = \text{URM3539}(-1) + \text{DURM3539}$$

外生変数の変換

LNHOIKU=log(HOIKU)

DLNHOIKU = LNHOIKU - LNHOIKU(-1)

LNUNIV=log(UNIV)

DLNUNIV=LNUNIV-LNUNIV(-1)

モデルの変数一覧

変数名	内容	出所
BR2024	女子20-24歳出生率	人口動態統計
BR2529	女子25-29歳出生率	人口動態統計
BR3034	女子30-34歳出生率	人口動態統計
BR3539	女子35-39歳出生率	人口動態統計
GDPNG	国内総生産(名目)成長率	国民経済計算年報
HOIKU	保育所定員数(0-4歳人口一人あたり)	厚生労働白書等
MR2024	女子20-24歳初婚率	人口動態統計
MR2529	女子25-29歳初婚率	人口動態統計
MR3034	女子30-34歳初婚率	人口動態統計
MR3539	女子35-39歳初婚率	人口動態統計
OPCOST	出産に関わる機会コスト	独自推計
OPMCOST	結婚に関わる機会コスト	独自推計
PWAGE	男子時間当たり賃金率	賃金センサス
PWAGEF	女子時間当たり賃金率	賃金センサス
TFR	合計特殊出生率	人口動態統計
UNIV	大学等進学率	文部科学統計
URF3034	女子30-34歳失業率	労働力調査
URF3539	女子35-39歳失業率	労働力調査
URM2529	男子25-29歳失業率	労働力調査
URM3034	男子30-34歳失業率	労働力調査
URM3539	男子35-39歳失業率	労働力調査