**Online Appendix 3. Alternative specifications**

Table A3.1. Robustness check – Including GDP per capita

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | NRC uppersec | NRM uppersec | Unemployment rate | NEET rate |
|  |  |  |  |  |
| Share of dual VET | 0.141\*\*\* | -0.165\*\*\* | -0.083\*\*\* | -0.020\*\*\* |
|  | (0.023) | (0.017) | (0.017) | (0.007) |
| Tertiary education attainment | -0.117 | 0.222\*\*\* | -0.028 | -0.018 |
|  | (0.077) | (0.086) | (0.061) | (0.016) |
| ALMP expenditure (Training) | -7.692\*\*\* | 5.351\* |  |  |
|  | (1.991) | (2.985) |  |  |
| ICT capital stock | 1.682\*\*\* | -1.540\*\*\* | -0.280 | 0.341\*\* |
|  | (0.333) | (0.455) | (0.272) | (0.132) |
| Share of service employment | -0.120 | 1.031\*\*\* |  |  |
|  | (0.109) | (0.165) |  |  |
| GDP growth | -0.222\*\*\* | 0.206\*\*\* | -0.066\* | -0.091\*\*\* |
|  | (0.046) | (0.080) | (0.036) | (0.023) |
| Labour productivity growth | 0.120\* | -0.081 | -0.005 | 0.067\*\*\* |
|  | (0.062) | (0.097) | (0.049) | (0.025) |
| Inflation rate | 0.001 | -0.067 | -0.089\*\* | -0.047 |
|  | (0.077) | (0.111) | (0.037) | (0.029) |
| Log of GDP per capita | 6.923\*\* | -11.224\*\*\* | 1.481 | -0.534 |
|  | (3.043) | (2.735) | (2.633) | (0.362) |
| ALMP expenditure (Total) |  |  | -0.191 | -0.010 |
|  |  |  | (0.285) | (0.128) |
| Unemployment rate (25-64) |  |  | 1.957\*\*\* | 0.571\*\*\* |
|  |  |  | (0.066) | (0.044) |
| Inactivity rate (25-64) |  |  |  | 0.238\*\*\* |
|  |  |  |  | (0.034) |
| Constant | -47.144\* | 86.650\*\*\* | -11.085 | 7.205\*\* |
|  | (28.080) | (22.242) | (26.349) | (3.384) |
|  |  |  |  |  |
| Observations | 443 | 443 | 443 | 389 |
| R-squared | 0.400 | 0.521 | 0.868 | 0.661 |
| Number of countries | 24 | 24 | 24 | 24 |

Panel corrected standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A3.2. Robustness check: Models with lagged explanatory variables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | NRC | NRM | Unemployment rate | NEET rate |
|  |  |  |  |  |
| Dualvet share (t-3) | 0.142\*\*\* | -0.161\*\*\* | -0.083\*\*\* |  |
|  | (0.030) | (0.034) | (0.011) |  |
| Dualvet share (t-1) |  |  |  | -0.022\*\* |
|  |  |  |  | (0.011) |
| Higher Education attainment (t-1) | -0.090 | 0.104 | -0.051\* | -0.019 |
|  | (0.097) | (0.146) | (0.031) | (0.021) |
| ALMP expenditure (training) (t-1) | -9.042\*\*\* | 7.471\*\* |  |  |
|  | (3.272) | (3.596) |  |  |
| ICT investments (t-1) | 1.168\*\*\* | -1.713\*\*\* | -0.096 | 0.410\*\*\* |
|  | (0.415) | (0.543) | (0.180) | (0.148) |
| Employment service share (t-1) | 0.145 | 0.661\*\*\* |  |  |
|  | (0.111) | (0.157) |  |  |
| GDP growth (t-1) | -0.056 | 0.018 | 0.008 | 0.020 |
|  | (0.061) | (0.101) | (0.040) | (0.035) |
| Labour productivity growth (t-1) | -0.063 | 0.017 | -0.037 | -0.003 |
|  | (0.067) | (0.109) | (0.044) | (0.039) |
| Inflation rate (t-1) | 0.150 | 0.071 | 0.018 | 0.049 |
|  | (0.097) | (0.137) | (0.051) | (0.060) |
| ALMP expenditure (total) (t-1) |  |  | -0.222 | -0.077 |
|  |  |  | (0.236) | (0.190) |
| Unemployment rate (25-64) (t) |  |  | 1.978\*\*\* | 0.646\*\*\* |
|  |  |  | (0.049) | (0.062) |
| Inactivity rate (25-64) (t) |  |  |  | 0.236\*\*\* |
|  |  |  |  | (0.040) |
| Constant | 8.567 | -4.665 | 3.567\*\*\* | 0.860 |
|  | (5.316) | (7.830) | (1.216) | (1.268) |
| Observations | 367 | 367 | 367 | 371 |
| R-squared | 0.391 | 0.471 | 0.826 | 0.650 |
| Number of countries | 21 | 21 | 21 | 21 |

Panel corrected standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A3.3. FGLS regression – Random effect model with robust standard errors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | NRC uppersec | NRM uppersec | Unemployment rate | NEET rate |
|  |  |  |  |  |
| Dualvet | 0.102\*\*\* | -0.055 | -0.042\*\* | -0.034\* |
|  | (0.038) | (0.091) | (0.021) | (0.021) |
| Tertiary education attainment | -0.012 | 0.386\*\*\* | 0.033 | -0.037 |
|  | (0.143) | (0.108) | (0.029) | (0.025) |
| ALMP expenditure (Training) | -4.742 | 7.010\* |  |  |
|  | (4.071) | (3.871) |  |  |
| ICT capital stock | 0.345 | 0.780 | -0.673\* | 0.240 |
|  | (0.769) | (0.964) | (0.351) | (0.277) |
| Share of service employment | -0.001 | 0.797\*\*\* |  |  |
|  | (0.229) | (0.244) |  |  |
| GDP growth | -0.220\*\*\* | 0.092 | -0.086\*\* | -0.107\*\*\* |
|  | (0.073) | (0.123) | (0.039) | (0.029) |
| Labour productivity growth | 0.237\*\* | -0.122 | -0.028 | 0.164\*\*\* |
|  | (0.109) | (0.112) | (0.044) | (0.046) |
| Inflation rate | 0.413\*\*\* | -0.381\*\* | -0.155\*\* | -0.054 |
|  | (0.076) | (0.155) | (0.077) | (0.062) |
| ALMP expenditure (Total) |  |  | -0.859\*\* | 0.752\*\* |
|  |  |  | (0.414) | (0.359) |
| Unemployment rate (25-64) |  |  | 1.870\*\*\* | 0.461\*\*\* |
|  |  |  | (0.079) | (0.053) |
| Inactivity rate (25-64) |  |  |  | 0.119\*\*\* |
|  |  |  |  | (0.046) |
| Constant | 17.189 | -27.796\*\* | 4.950\*\*\* | 5.035\*\*\* |
|  | (12.857) | (14.020) | (1.378) | (1.603) |
|  |  |  |  |  |
| Observations | 443 | 443 | 443 | 389 |
| Number of countries | 24 | 24 | 24 | 24 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1