1. **IPM**

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| Dependent Variable: IPM |  |  |
| Method: Panel Fully Modified Least Squares (FMOLS) |
| Date: 04/07/21 Time: 11:41 |  |  |
| Sample (adjusted): 2011 2019 |  |  |
| Periods included: 9 |  |  |
| Cross-sections included: 140 |  |  |
| Total panel (balanced) observations: 1260 |  |
| Panel method: Grouped estimation |  |
| Long-run covariance estimates (Bartlett kernel, Newey-West fixed |
|         bandwidth) |  |  |
| Warning: one more more cross-sections have been dropped due to |
|         estimation errors |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| LNHEALTH | 16.11813 | 0.038023 | 423.9016 | 0.0000 |
| DUMMYPENDIDIKAN | 52.64895 | 6.819515 | 7.720337 | 0.0000 |
| DUMMYPENDIDIKAN\*LNHEALTH | -12.95771 | 1.779291 | -7.282513 | 0.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | -1.201893 |     Mean dependent var | 67.35704 |
| Adjusted R-squared | -1.205396 |     S.D. dependent var | 5.718651 |
| S.E. of regression | 8.492525 |     Sum squared resid | 90658.59 |
| Long-run variance | 13.19285 |  |  |  |
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| Dependent Variable: IPM |  |  |
| Method: Panel Fully Modified Least Squares (FMOLS) |
| Date: 04/07/21 Time: 11:40 |  |  |
| Sample (adjusted): 2011 2019 |  |  |
| Periods included: 9 |  |  |
| Cross-sections included: 24 |  |  |
| Total panel (balanced) observations: 216 |  |
| Panel method: Grouped estimation |  |
| Long-run covariance estimates (Bartlett kernel, Newey-West fixed |
|         bandwidth) |  |  |
| Warning: one more more cross-sections have been dropped due to |
|         estimation errors |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| LNEDUC | 12.44054 | 0.065247 | 190.6680 | 0.0000 |
| DUMMYKESEHATAN | 59.78713 | 4.452282 | 13.42843 | 0.0000 |
| DUMMYKESEHATAN\*LNEDUC | -11.07252 | 0.815960 | -13.56994 | 0.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.101849 |     Mean dependent var | 64.27172 |
| Adjusted R-squared | 0.093416 |     S.D. dependent var | 11.82491 |
| S.E. of regression | 11.25905 |     Sum squared resid | 27001.22 |
| Long-run variance | 4.578486 |  |  |  |
|  |  |  |  |  |
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| Dependent Variable: IPM |  |  |
| Method: Panel Fully Modified Least Squares (FMOLS) |
| Date: 04/07/21 Time: 11:38 |  |  |
| Sample (adjusted): 2011 2019 |  |  |
| Periods included: 9 |  |  |
| Cross-sections included: 61 |  |  |
| Total panel (balanced) observations: 549 |  |
| Panel method: Grouped estimation |  |
| Long-run covariance estimates (Bartlett kernel, Newey-West fixed |
|         bandwidth) |  |  |
| Warning: one more more cross-sections have been dropped due to |
|         estimation errors |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| DUMMYPENDIDIKAN | 1.986257 | 5.673052 | 0.350121 | 0.7264 |
| DUMMYKESEHATAN | 116.1245 | 7.872575 | 14.75052 | 0.0000 |
| DUMMYPENDIDIKAN\*LNHEALTH | 8.721427 | 1.411242 | 6.179967 | 0.0000 |
| DUMMYKESEHATAN\*LNEDUC | -14.81842 | 2.145292 | -6.907412 | 0.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | -8.482234 |     Mean dependent var | 67.89242 |
| Adjusted R-squared | -8.534430 |     S.D. dependent var | 6.055708 |
| S.E. of regression | 18.69874 |     Sum squared resid | 190555.3 |
| Long-run variance | 53.73761 |  |  |  |
|  |  |  |  |  |
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| Date: 04/07/21 Time: 11:36 |  |  |  |
| Sample: 2010 2019 |  |  |
|  |  |  |  |
|  |  |  |  |
|  | LNHEALTH | LNEDUC | IPM |
|  |  |  |  |
|  |  |  |  |
|  Mean |  4.603360 |  5.399265 |  66.79472 |
|  Median |  4.592838 |  5.485916 |  66.74429 |
|  Maximum |  7.604246 |  8.366669 |  86.65000 |
|  Minimum |  0.810573 |  0.955409 |  19.61736 |
|  Std. Dev. |  0.841843 |  0.993760 |  7.023344 |
|  Skewness | -0.016774 | -0.642524 | -0.938355 |
|  Kurtosis |  3.090565 |  3.472266 |  7.070915 |
|  |  |  |  |
|  Jarque-Bera |  1.908259 |  383.4679 |  4110.978 |
|  Probability |  0.385147 |  0.000000 |  0.000000 |
|  |  |  |  |
|  Sum |  22602.50 |  26510.39 |  327962.1 |
|  Sum Sq. Dev. |  3479.004 |  4847.923 |  242148.0 |
|  |  |  |  |
|  Observations |  4910 |  4910 |  4910 |

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| Panel unit root test: Summary  |  |
| Series: D(IPM) |  |  |
| Date: 04/07/21 Time: 11:21 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: None |  |  |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -12.0565 |  0.0000 |  491 |  3757 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| ADF - Fisher Chi-square |  992.196 |  0.4035 |  491 |  3757 |
| PP - Fisher Chi-square |  1037.43 |  0.1069 |  491 |  3928 |
|  |  |  |  |  |
|  |  |  |  |  |
| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(IPM) |  |  |
| Date: 04/07/21 Time: 11:22 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: Individual effects |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -49.2844 |  0.0000 |  491 |  3798 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| Im, Pesaran and Shin W-stat  | -22.1937 |  0.0000 |  491 |  3798 |
| ADF - Fisher Chi-square |  2347.81 |  0.0000 |  491 |  3798 |
| PP - Fisher Chi-square |  2879.62 |  0.0000 |  491 |  3928 |
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| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(IPM) |  |  |
| Date: 04/07/21 Time: 11:24 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: Individual effects, individual linear trends |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
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|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -54.9265 |  0.0000 |  491 |  3700 |
| Breitung t-stat | -9.05725 |  0.0000 |  491 |  3209 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| Im, Pesaran and Shin W-stat  | -6.42616 |  0.0000 |  491 |  3700 |
| ADF - Fisher Chi-square |  1712.55 |  0.0000 |  491 |  3700 |
| PP - Fisher Chi-square |  2759.28 |  0.0000 |  491 |  3928 |
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|  |  |  |  |  |
| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(LNEDUC) |  |  |
| Date: 04/07/21 Time: 11:25 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: None |  |  |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -92.5828 |  0.0000 |  491 |  3881 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| ADF - Fisher Chi-square |  6569.90 |  0.0000 |  491 |  3881 |
| PP - Fisher Chi-square |  8528.63 |  0.0000 |  491 |  3928 |
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| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(LNEDUC) |  |  |
| Date: 04/07/21 Time: 11:25 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: Individual effects |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -88.7642 |  0.0000 |  491 |  3862 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| Im, Pesaran and Shin W-stat  | -39.8926 |  0.0000 |  491 |  3862 |
| ADF - Fisher Chi-square |  3658.58 |  0.0000 |  491 |  3862 |
| PP - Fisher Chi-square |  6736.15 |  0.0000 |  491 |  3928 |
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| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(LNEDUC) |  |  |
| Date: 04/07/21 Time: 11:26 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: Individual effects, individual linear trends |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -80.5658 |  0.0000 |  491 |  3801 |
| Breitung t-stat | -56.7615 |  0.0000 |  491 |  3310 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| Im, Pesaran and Shin W-stat  | -11.0982 |  0.0000 |  491 |  3801 |
| ADF - Fisher Chi-square |  2257.59 |  0.0000 |  491 |  3801 |
| PP - Fisher Chi-square |  5275.35 |  0.0000 |  491 |  3928 |
|  |  |  |  |  |
|  |  |  |  |  |
| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |
| Panel unit root test: Summary  |  |
| Series: D(LNHEALTH) |  |  |
| Date: 04/07/21 Time: 11:26 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: None |  |  |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -80.5185 |  0.0000 |  491 |  3898 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| ADF - Fisher Chi-square |  5787.25 |  0.0000 |  491 |  3898 |
| PP - Fisher Chi-square |  6230.48 |  0.0000 |  491 |  3928 |
|  |  |  |  |  |
|  |  |  |  |  |
| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(LNHEALTH) |  |  |
| Date: 04/07/21 Time: 11:27 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: Individual effects |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -82.4297 |  0.0000 |  491 |  3807 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| Im, Pesaran and Shin W-stat  | -38.4656 |  0.0000 |  491 |  3807 |
| ADF - Fisher Chi-square |  3564.38 |  0.0000 |  491 |  3807 |
| PP - Fisher Chi-square |  6426.37 |  0.0000 |  491 |  3928 |
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|  |  |  |  |  |
| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Panel unit root test: Summary  |  |
| Series: D(LNHEALTH) |  |  |
| Date: 04/07/21 Time: 11:27 |  |
| Sample: 2010 2019 |  |  |
| Exogenous variables: Individual effects, individual linear trends |
| Automatic selection of maximum lags |  |
| Automatic lag length selection based on SIC: 0 to 1 |
| Newey-West automatic bandwidth selection and Bartlett kernel |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | Cross- |  |
| Method | Statistic | Prob.\*\* | sections | Obs |
| Null: Unit root (assumes common unit root process)  |
| Levin, Lin & Chu t\* | -70.5273 |  0.0000 |  491 |  3718 |
| Breitung t-stat | -50.0301 |  0.0000 |  491 |  3227 |
|  |  |  |  |  |
| Null: Unit root (assumes individual unit root process)  |
| Im, Pesaran and Shin W-stat  | -9.75487 |  0.0000 |  491 |  3718 |
| ADF - Fisher Chi-square |  2128.44 |  0.0000 |  491 |  3718 |
| PP - Fisher Chi-square |  5270.27 |  0.0000 |  491 |  3928 |
|  |  |  |  |  |
|  |  |  |  |  |
| \*\* Probabilities for Fisher tests are computed using an asymptotic Chi |
|         -square distribution. All other tests assume asymptotic normality. |

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| Johansen Fisher Panel Cointegration Test |  |  |  |  |
| Series: LNHEALTH LNEDUC IPM  |  |  |
| Date: 04/07/21 Time: 11:28 |  |  |
| Sample: 2010 2019 |  |  |  |
| Included observations: 4910 |  |  |
| Trend assumption: Linear deterministic trend |  |
| Lags interval (in first differences): 0 1 |  |
|  |  |  |  |  |
| Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue) |
|  |  |  |  |  |
|  |  |  |  |  |
| Hypothesized | Fisher Stat.\* |  | Fisher Stat.\* |  |
| No. of CE(s) | (from trace test) | Prob. | (from max-eigen test) | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| None |  4120. |  0.0000 |  3655. |  0.0000 |
| At most 1 |  1502. |  0.0000 |  1338. |  0.0000 |
| At most 2 |  1325. |  0.0000 |  1325. |  0.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
| \* Probabilities are computed using asymptotic Chi-square distribution. |  |  |  |  |