**Appendix:**

**Earmarked Funding and the Control-Performance Trade-Off in**

**International Development Organizations**

Figure A1: Distribution of earmarked and core-funded World Bank projects by sector



Figure A2: Distribution of earmarked and core-funded World Bank projects by region



Figure A3: Distribution of earmarked and core-funded World Bank projects by income group



Figure A4: Distribution of World Bank performance ratings



Table A1: descriptive statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable name | N | Mean | SD | Min | Max |
| WB performance | 6258 | 4.121 | 1.097 | 1.000 | 6.000 |
| Yearly supervision costs (log) | 3101 | 4.370 | 1.030 | -7.279 | 8.867 |
| IDO performance | 7581 | 4.141 | 1.046 | 1.000 | 6.000 |
| Earmarked | 7581 | 0.609 | 0.488 | 0.000 | 1.000 |
| Amount (log) | 7579 | 15.377 | 5.086 | 0.000 | 22.372 |
| Pilot project | 7581 | 0.006 | 0.074 | 0.000 | 1.000 |
| Earmarking (lending instrument) | 7554 | 0.603 | 0.301 | 0.000 | 1.000 |
| Performance (lending instrument) | 7552 | 4.137 | 0.321 | 1.857 | 6.000 |
| Supervision costs (lending instrument) | 3085 | 4.370 | 0.553 | 0.347 | 7.037 |

Table A2: first-stage regressions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
|  | OLS | OLS | OLS | OLS |
| Earmarking share instrument-year | 0.5008\*\*\* | 0.4725\*\*\* | 0.1654\* | 0.1683\* |
| (0.0479) | (0.0470) | (0.0842) | (0.0841) |
|  |  |  |  |  |
| Performance lending instrument | -0.0209 | -0.0054 |  |  |
| (0.0219) | (0.0216) |  |  |
|  |  |  |  |  |
| Project amount (log) |  | -0.0229\*\*\* |  | 0.0098 |
|  |  | (0.0037) |  | (0.0095) |
|  |  |  |  |  |
| Pilot project |  | 0.0086 |  | -0.0178 |
|  |  | (0.0661) |  | (0.1173) |
|  |  |  |  |  |
| Costs lending instrument |  |  | 0.1236\*\*\* | 0.1279\*\*\* |
|  |  |  | (0.0268) | (0.0271) |
|  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 6219 | 6219 | 3077 | 3077 |
| *R*2 | 0.206 | 0.210 | 0.219 | 0.220 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A3: alternative fixed effects (only WB)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (5) | (6) | (7) | (8) | (9) |
|  | 2SLS | 2SLS | 2SLS | 2SLS | 2SLS |
| Earmarked project | -0.4941\* | -0.7996\*\* | -0.7054\* | -0.7184\*\* | -0.6469+ |
|  | (0.2119) | (0.2794) | (0.3088) | (0.2316) | (0.3520) |
|  |  |  |  |  |  |
| Project amount (log) | -0.0058 | -0.0043 | 0.0011 | -0.0189 | -0.0067 |
|  | (0.0112) | (0.0129) | (0.0152) | (0.0131) | (0.0177) |
|  |  |  |  |  |  |
| Performance lending instrument | 0.4255\*\*\* | 0.2959\*\*\* | 0.2702\*\*\* | 0.4647\*\*\* | 0.3710\*\*\* |
| (0.0556) | (0.0625) | (0.0778) | (0.0601) | (0.0895) |
|  |  |  |  |  |  |
| Pilot project | 0.0898 | 0.0363 | -0.0281 | -0.1273 | -0.1632 |
|  | (0.1855) | (0.1971) | (0.2322) | (0.1984) | (0.3299) |
|  |  |  |  |  |  |
| Evaluation type fixed effects | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |
| Country-year fixed effects | No | No | Yes | No | Yes |
|  |  |  |  |  |  |
| Sector-year fixed effects | No | Yes | Yes | No | Yes |
|  |  |  |  |  |  |
| Country-sector fixed effects | No | No | No | Yes | Yes |
|  |  |  |  |  |  |
| Country fixed effects | Yes | Yes | No | No | No |
|  |  |  |  |  |  |
| Sector fixed effects | Yes | No | No | No | No |
|  |  |  |  |  |  |
| Year fixed effects | Yes | No | No | Yes | No |
| Observations | 6219 | 6208 | 5332 | 5895 | 4893 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A4: alternative fixed effects (all MDBs)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (10) | (11) | (12) | (13) |
|  | OLS | OLS | OLS | OLS |
| Earmarked project | -0.0727\* | -0.0694\* | -0.0762\* | -0.0794\* |
|  | (0.0307) | (0.0314) | (0.0320) | (0.0375) |
|  |  |  |  |  |
| IDO-year fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| IDO-country fixed effects | No | Yes | Yes | Yes |
|  |  |  |  |  |
| Country fixed effects | Yes | No | No | No |
|  |  |  |  |  |
| Country-year fixed effects | No | No | No | Yes |
|  |  |  |  |  |
| Sector fixed effects | Yes | Yes | No | No |
|  |  |  |  |  |
| Sector-year fixed effects | No | No | Yes | No |
| Observations | 7556 | 7510 | 7500 | 6664 |
| *R*2 | 0.123 | 0.138 | 0.180 | 0.359 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A5: additional control variables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (14) | (15) | (16) | (17) |
|  | 2SLS | 2SLS | 2SLS | 2SLS |
| Earmarked project | -0.7059\* | -0.8915\* | -0.7784+ | -0.8132+ |
|  | (0.3239) | (0.3622) | (0.4330) | (0.4395) |
|  |  |  |  |  |
| Project amount (log) | -0.0007 | 0.0001 | -0.0006 | 0.0014 |
|  | (0.0163) | (0.0175) | (0.0175) | (0.0183) |
|  |  |  |  |  |
| Performance lending instrument | 0.2848\*\*\* | 0.3289\*\*\* | 0.3049\*\*\* | 0.3122\*\*\* |
| (0.0801) | (0.0831) | (0.0830) | (0.0837) |
|  |  |  |  |  |
| Pilot project | -0.0338 | 0.0180 | 0.0107 | -0.0133 |
|  | (0.2723) | (0.2775) | (0.2772) | (0.2955) |
|  |  |  |  |  |
| Change UNGA voting | 0.0004 |  |  | -0.0175 |
|  | (0.1112) |  |  | (0.1242) |
|  |  |  |  |  |
| UNSC membership (during project) | 0.0689 |  |  | 0.1005 |
| (0.0855) |  |  | (0.0918) |
|  |  |  |  |  |
| Change Control of Corruption |  | -0.2468 |  | -0.2069 |
|  |  | (0.4446) |  | (0.4544) |
|  |  |  |  |  |
| Change GDPpc |  |  | -0.0462 | -0.0431 |
|  |  |  | (0.0304) | (0.0304) |
|  |  |  |  |  |
| Country-year fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Sector-year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 5013 | 4539 | 4525 | 4450 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A6: alternative clustering

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (18) | (19) | (20) | (21) |
|  | 2SLS | 2SLS | 2SLS | 2SLS |
| Earmarked project | -0.4710\* | -0.4710\* | -0.4710\* | -0.4710+ |
|  | (0.2212) | (0.2114) | (0.2333) | (0.2331) |
|  |  |  |  |  |
| Project amount (log) | -0.0065 | -0.0065 | -0.0065 | -0.0065 |
|  | (0.0114) | (0.0117) | (0.0111) | (0.0136) |
|  |  |  |  |  |
| Performance lending instrument | 0.4215\*\*\* | 0.4215\*\*\* | 0.4215\*\*\* | 0.4215\*\*\* |
| (0.0592) | (0.0561) | (0.0715) | (0.0586) |
|  |  |  |  |  |
| Pilot project | 0.0834 | 0.0834 | 0.0834 | 0.0834 |
|  | (0.2152) | (0.1879) | (0.2065) | (0.1447) |
|  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 6219 | 6219 | 6219 | 6219 |

Country (18), country-sector (19), sector-year (20), and evaluation year (21) clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A7: Controlling for lending instruments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (22) OLS | (23)  OLS | (24)  OLS | (25)  OLS |
| *DV:* | *Performance* | *Performance* | *Costs* | *Costs* |
| Earmarked project | -0.0689\* | -0.0552+ | 0.3170\*\*\* | 0.3060\*\*\* |
|  | (0.0326) | (0.0329) | (0.0375) | (0.0385) |
|  |  |  |  |  |
| Performance lending instrument | 0.4393\*\*\* | 0.4438\*\*\* |  |  |
| (0.0533) | (0.0534) |  |  |
|  |  |  |  |  |
| Costs lending instrument |  |  | 0.7637\*\*\* | 0.7323\*\*\* |
|  |  | (0.0627) | (0.0625) |
|  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Sector fixed effects | No | Yes | No | Yes |
|  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 6222 | 6219 | 3077 | 3077 |
| *R*2 | 0.123 | 0.130 | 0.321 | 0.324 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A8: Sub-samples for lending instruments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (26) | (27) | (28) | (29) |
|  | IPF | DPF | IPF | DPF |
| *DV:* | *Performance* | *Performance* | *Costs* | *Costs* |
| Earmarked project | -0.0302 | -0.0938 | 0.3415\*\*\* | 0.1124 |
|  | (0.0447) | (0.0854) | (0.0255) | (0.1592) |
|  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 2410 | 648 | 2410 | 648 |
| *R*2 | 0.129 | 0.379 | 0.291 | 0.377 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A9: alternative dependent variables

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (30) | (31) | (32) | (33) | (34) |
|  | 2SLS | 2SLS | 2SLS | 2SLS | 2SLS |
| *DV:* | *Design* | *Supervision* | *Outcome* | *Binary* | *Alternative Binary* |
| Earmarked project | -0.4777\* | -0.4219\* | -0.2543 | -0.0921 | -0.2940\*\* |
|  | (0.2338) | (0.2105) | (0.2222) | (0.0825) | (0.0966) |
|  |  |  |  |  |  |
| Project amount (log) | 0.0031 | 0.0018 | 0.0028 | -0.0016 | -0.0035 |
|  | (0.0122) | (0.0113) | (0.0114) | (0.0044) | (0.0050) |
|  |  |  |  |  |  |
| Performance lending instrument | 0.4801\*\*\* | 0.3666\*\*\* |  | 0.1080\*\*\* | 0.2319\*\*\* |
| (0.0606) | (0.0553) |  | (0.0199) | (0.0222) |
|  |  |  |  |  |  |
| Pilot project | -0.2490 | 0.0576 | 0.0230 | -0.0089 | 0.0777 |
|  | (0.2329) | (0.1681) | (0.1863) | (0.0709) | (0.0656) |
|  |  |  |  |  |  |
| Outcome lending instrument |  |  | 0.0533 |  |  |
|  |  |  | (0.0535) |  |  |
|  |  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes |
| Observations | 6161 | 6083 | 6234 | 6219 | 6219 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A10: non-linear models

|  |  |  |  |
| --- | --- | --- | --- |
|  | (35) | (36) | (37) |
|  | Ordered logit | Logit | Logit |
| Earmarked project | -0.1577\*\* | -0.2856\*\*\* | -0.0187 |
|  | (0.0584) | (0.0757) | (0.0758) |
|  |  |  |  |
| Project amount (log) | 0.0569\*\* | 0.0656\*\* | 0.0287 |
|  | (0.0187) | (0.0245) | (0.0207) |
|  |  |  |  |
| Pilot project | 0.1924 | 0.4085 | -0.0763 |
|  | (0.3849) | (0.3616) | (0.3891) |
|  |  |  |  |
| Country fixed effects | Yes | Yes | Yes |
|  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes |
|  |  |  |  |
| Year fixed effects | Yes | Yes | Yes |
| Observations | 6256 | 6206 | 6186 |
| Pseudo *R*2 | 0.070 | 0.205 | 0.079 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A11: alternative independent variables

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (38) | (39) | (40) | (41) | (42) | (43) |
|  | OLS | 2SLS | OLS | OLS | 2SLS | OLS |
| *DV:* | *Performance* | *Performance* | *Performance* | *Costs* | *Costs* | *Costs* |
| Count of trust funds (log) | -0.0463\*\* | -0.2554\* |  | 0.2776\*\*\* | 0.7898\*\* |  |
| (0.0168) | (0.1137) |  | (0.0226) | (0.2517) |  |
| Co-financed project |  |  | -0.0028 |  |  | 0.5058\*\*\* |
|  |  | (0.0448) |  |  | (0.0582) |
|  |  |  |  |  |  |  |
| Trust-funded project |  |  | -0.1029\*\* |  |  | 0.3851\*\*\* |
|  |  | (0.0395) |  |  | (0.0422) |
|  |  |  |  |  |  |  |
| Project amount (log) | 0.0211\* | -0.0008 | 0.0264\* | -0.0033 | 0.0697\*\* | 0.0202 |
|  | (0.0100) | (0.0105) | (0.0115) | (0.0191) | (0.0221) | (0.0191) |
|  |  |  |  |  |  |  |
| Pilot project | 0.0824 | 0.1029 | 0.0986 | -0.1256 | -0.1103 | -0.0114 |
|  | (0.1875) | (0.1868) | (0.2019) | (0.1379) | (0.3139) | (0.1622) |
|  |  |  |  |  |  |  |
| Performance lending instrument |  | 0.4165\*\*\* |  |  |  |  |
|  | (0.0568) |  |  |  |  |
|  |  |  |  |  |  |  |
| Costs lending instrument |  |  |  |  | 0.6737\*\*\* |  |
|  |  |  |  |  | (0.0829) |  |
|  |  |  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 6246 | 6219 | 5232 | 3093 | 3077 | 2617 |
| *R*2 | 0.120 |  | 0.125 | 0.253 |  | 0.250 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A12: alternative estimations cost-effectiveness

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (44) | (45) | (46) | (47) | (48) | (49) |
|  | PPML | PPML | PPML | PPML | PPML | PPML |
| Earmarked project | 0.4832\*\*\* | 0.4230\*\*\* | 0.6083\*\*\* | 0.5704\*\*\* | 0.5982\*\*\* | 0.5371\*\*\* |
|  | (0.0340) | (0.0490) | (0.0406) | (0.0626) | (0.0253) | (0.0404) |
|  |  |  |  |  |  |  |
| Project amount (log) | 0.1062\*\*\* | 0.0513\* | 0.0260 | -0.0677\* | 0.1344\*\*\* | 0.1517\*\*\* |
|  | (0.0174) | (0.0219) | (0.0192) | (0.0278) | (0.0149) | (0.0186) |
|  |  |  |  |  |  |  |
| Pilot project | 0.0442 | -0.3046 | 0.0898 | -0.2028 | -0.6190\*\* | -1.2304+ |
|  | (0.1193) | (0.5160) | (0.1900) | (0.4910) | (0.2316) | (0.6721) |
|  |  |  |  |  |  |  |
| Country fixed effects | Yes | No | Yes | No | Yes | No |
|  |  |  |  |  |  |  |
| Country-year fixed effects | No | Yes | No | Yes | No | Yes |
|  |  |  |  |  |  |  |
| Sector fixed effects | Yes | No | Yes | No | Yes | No |
|  |  |  |  |  |  |  |
| Sector-year fixed effects | No | Yes | No | Yes | No | Yes |
|  |  |  |  |  |  |  |
| Country-sector fixed effects | No | Yes | No | Yes | No | Yes |
|  |  |  |  |  |  |  |
| Year fixed effects | Yes | No | Yes | No | Yes | No |
| Observations | 3259 | 2282 | 3259 | 2282 | 3273 | 2296 |
| Pseudo *R*2 | 0.319 | 0.695 | 0.383 | 0.699 | 0.302 | 0.653 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A13: Plausibly exogenous IV estimate WB performance (Conley et al. 2012)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Exogeneity error | Variable | Lower bound  (90 CI) | Upper bound  (90 CI) | Observations |
| 5% | Earmarked project (instrumented) | -0.860 | -0.085 | 6229 |
| 10% | Earmarked project (instrumented) | -0.911 | -0.037 | 6229 |
| 15% | Earmarked project (instrumented) | -0.962 | 0.012 | 6229 |

Table A14: Plausibly exogenous IV estimate supervision costs (Conley et al. 2012)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Exogeneity error | Variable | Lower bound  (90 CI) | Upper bound  (90 CI) | Observations |
| 5% | Earmarked project (instrumented) | 0.094 | 7.244 | 3092 |
| 10% | Earmarked project (instrumented) | -0.368 | 8.900 | 3092 |
| 15% | Earmarked project (instrumented) | -1.046 | 10.465 | 3092 |

Table A15: halo effect

|  |  |  |  |
| --- | --- | --- | --- |
|  | (50) | (51) | (52) |
|  |  |  |  |
| Earmarked project | -0.3998+ | -0.4638\*\* | -0.6767\*\*\* |
|  | (0.2062) | (0.1473) | (0.2022) |
|  |  |  |  |
| Project amount (log) | 0.0001 | -0.0093 | -0.0085 |
|  | (0.0093) | (0.0081) | (0.0087) |
|  |  |  |  |
| Performance lending instrument | 0.1533\*\* | 0.2041\*\*\* | 0.1267\*\* |
| (0.0472) | (0.0404) | (0.0454) |
|  |  |  |  |
| Recipient performance | 0.6487\*\*\* |  | 0.2876\*\*\* |
|  | (0.0134) |  | (0.0217) |
|  |  |  |  |
| Project performance |  | 0.7317\*\*\* | 0.5082\*\*\* |
|  |  | (0.0115) | (0.0211) |
|  |  |  |  |
| Pilot project | 0.2061 | 0.0529 | 0.1365 |
|  | (0.1543) | (0.1258) | (0.1362) |
|  |  |  |  |
| Country fixed effects | Yes | Yes | Yes |
|  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes |
|  |  |  |  |
| Year fixed effects | Yes | Yes | Yes |
| Observations | 5712 | 6160 | 5654 |
| *R*2 | 0.447 | 0.513 | 0.516 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Table A16: Rating bias

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (53) | (54) | (55) | (56) |
|  |  |  |  |  |
| Earmarked project | -0.0048 | -0.0068 | 0.0004 | -0.0008 |
|  | (0.0299) | (0.0300) | (0.0280) | (0.0281) |
|  |  |  |  |  |
| WB performance (IEG rating) | 0.2219\*\*\* | 0.2219\*\*\* |  |  |
| (0.0125) | (0.0125) |  |  |
|  |  |  |  |  |
| Project outcome (IEG rating) |  |  | 0.3145\*\*\* | 0.3142\*\*\* |
|  |  |  | (0.0125) | (0.0125) |
|  |  |  |  |  |
| Project amount (log) |  | -0.0126+ |  | -0.0072 |
|  |  | (0.0067) |  | (0.0065) |
|  |  |  |  |  |
| Pilot project |  | 0.2259\* |  | 0.2550\*\* |
|  |  | (0.0933) |  | (0.0971) |
|  |  |  |  |  |
| Report-type fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Country fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Sector fixed effects | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Observations | 3376 | 3376 | 3424 | 3424 |
| *R*2 | 0.340 | 0.341 | 0.404 | 0.405 |

Country-year clustered standard errors in parentheses; + *p* < 0.1, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001