# A Online Appendix

This appendix contains additional information about the coding rules and sources used for constructing the variables from the SPAW dataset, and a number of robustness tests and extensions of the empirical analysis presented in the paper. After presenting some more detail on the coding rules and sources used for the coding of social policy programs, the remaining sections of the appendix are organized such that they cover the robustness tests and extensions found in the different subsections of the empirical analysis.

Hence, after the data discussion, we present descriptive statistics and additional analysis related to the subsection that addresses whether regime type matters for the probability of having pension (and other social policy) programs. These tests include models with alternative sets of control variables, models run on shorter time series and models using alternative measures of democracy than the Boix-Miller-Rosato measure that we use as our baseline.

Thereafter, we present additional analysis for the subsection on whether autocracies and democracies differ in terms of how universal or targeted their pension programs are. This sub-section include robustness tests of the models on pension systems, but we also report universalism indices constructed for the other social policy programs. Further, the sub-section contains different models that robustness test whether our assumptions regarding the measurement level of the universalism index matters, including ordinal logit and probit models.

We finally present descriptive statistics and results for the subsection addressing whether pension programs affect probability of regime breakdown. More specifically, we first present the "naive" models that do not account for the fact that the adoption of pension programs is endogenous, and which thus yield biased results, and versions of these models experimenting with different lag-lengths. This sub-section also contains the first-stage results from the IV probit and FE 2SLS models treating pension programs as endogenous, robustness tests of the IV models reported in the paper, as well as IV models on regime breakdown treating the other social policy programs as endogenous regressors. Finally, it includes an extended discussion and IV regression results when democratization rather than autocratic regime failure is the dependent variable.

### A.1 SPAW - notes on coding rules and sources

In this section, we outline, in more detail, how our coding in SPAW differs from previous attempts to code the introduction of major social policy laws. Further, we provide more information on how the information used for constructing the Universalism Indices is coded. Finally, we report and discuss the main sources used for coding the SPAW variables used in the paper.

As noted in the paper, SPAW contains two main categories of variables, namely I) *legislative changes* and II) *program characteristics*. To expand on the contents of the second category , program characteristics may be conceptualized as varying along two dimensions, IIa) *eligibility* and IIb) *distributive potential*. *Eligibility* refers to rules defining who can partake, whereas *distributive potential* concerns the program's inherent capacity to allocate benefits to members. Therefore, eligibility relates to who is covered against risks, and distributive potential to the benefits program members can expect. SPAW measures eligibility by first classifying whether programs are means-tested, employment-based or fully universal, and make further nuances by constructing Universalism indices – with the longest time series starting with the German accident liability insurance of 1871. For *distributive potential*, SPAW contains numerous variables, including measures of whether program eligibility is constrained by income ceilings; number of days recipients must wait before receiving benefits; number of weeks program benefits extend over; and, whether the state subsidizes programs.

Regarding I), the main differences in the scoring of existence of major social policy programs between the SPAW and previous coding efforts (Cutright 1965; Collier and Messick 1975; Hicks 1995; Mares and Carnes 2009) is the more precise definition of what constitutes a major law, what type of programs are considered as social policy programs, and how to deal with federal states. We discuss how we dealt with these and other issues below. Importantly, we only consider a program as a major welfare law if it covers (at least) one major social group. These groups are agricultural workers; industrial/production workers; small-firm workers; self-employed; students; employers; temporary/casual workers; family/domestic workers. The SPAW operationalization thus excludes from being considered as an above minimum-level program the early social legislation that tended to be restricted to, for instance, miners, sailors, postal workers, transport workers, and those employed in various forms of public service (military, civil servants, judges and so on). As noted, we employ this criterion for coding social policy programs divided into six areas: sickness leave; maternity leave; unemployment; disability/work injury; family allowances; and, old-age pensions.

Another source of difference between the SPAW coding and other datasets concerns how to deal with programs in federal states. Social policy legislation might be absent at the federal level, but be prevalent at the state-level, but often far more so in some states (within a country) than others. It is difficult to ensure cross-country comparability in the coding of federal-state legislation (in part due to lack of comparable sources). It is not clear how previous databases have solved this problem. In order to be consistent, we have thus only employed national legislation, meaning that state or provincial legislation is not included in the coding. Quite naturally, one might worry that this underestimate the extent of social regulation in federal states compared to in unitary states. For example, federal family benefits in Switzerland was for a long time restricted to farmers only, with the various Cantons having introduced measures to cover most urban workers. So, in effect, most categories of workers ended up with coverage even if not trough the same legislation. At the same time, differences between local and national arrangements also exist in unitary states. For example, in Norway local pensions covered most of the population long before a national pension system was put in place in 1936. It is therefore not entirely certain that this omission only impacts federal states, as also unitary states had encompassing local or regional initiatives. Coding (and aggregating) local regulations both for federal and unitary states, down to the municipality level, is a tremendous task, and we thus consider the choice to only include national legislation the best alternative, in practice.

One common source of disagreement on the introduction of major laws relates to previous studies not separating benefits in kind systems from transfer programs. In order to provide a clear coding and avoid any resulting conflation and misinterpretation, SPAW only codes the latter. It should be noted that even previous datasets that have claimed to measure only transfer programs are sometimes doing otherwise. For example, New Zealand is sometimes coded as having an unemployment program in 1930. Unfortunately, closer inspection with primary sources shows that New Zealand at that time had only introduced an unemployment relief program, where unemployed workers were given public work in exchange for basic assistance. Even if one accepts this as an unemployment insurance program, benefits where not in payments, but instead in kind. New Zealand did not introduce a transfer program before in 1938, an eight year difference between our score and the score from the previous measures.

Further, in the SPAW coding, we have focused on whether groups have the *right* to become members of an insurance, and not the stronger requirement that they are actively forced so by the government (as is the case in compulsory insurance). Hence, in our main variables used in the paper,

we make no difference between coverage of major groups resulting from coverage in a voluntary program or whether they are given the option to insure voluntary in a program that is obligatory for other groups. This explains why, for instance, our coded coverage level for Japanese programs is more generous than what is sometime assumed; we take into account that even as compulsory insurance was restricted to urban workers in large firms, other categories of workers could voluntary opt into coverage. We have, however, left out voluntary coverage programs without some form of state subsidies.

Regarding II), the program characteristics measures used in the paper are the Universalism Indices. Numerous sources have been used to code these indices, notably the ILO Legislative series (1919-), US Labor Department SSPTW-reports (1937-), and various national sources such as national law-databases (Scandinavian and Anglo-Saxon countries) and statistical yearbooks (Australian Bureau of Statistics, Various; New Zealand Statistics, Various; Statistics Norway, Various). Previous data collection efforts such as De Mesa and Mesa-Lago (2006); Flora, Alber and others (1983,?); Mesa-Lago (1978, 2007, 2008), and particularly the early M-series reports by the ILO (1922-1936) have also been consulted. The distributions of the Universalism Indices for the six major programs are shown in Figure A.1.

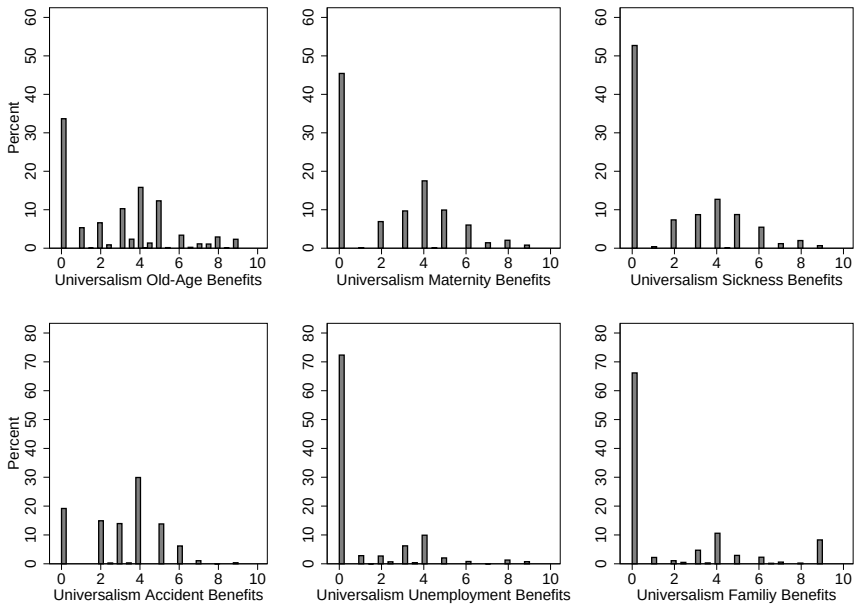


Figure A.1: Distribution on Universalism Index for the six major social policy programs, all SPAW observations.

In coding the Universalism Indices we had to make choices regarding what was to be considered as proper coverage. In coding the extent of coverage, the SPAW variables make no distinction between

whether this coverage results from voluntary or compulsory insureance or private or social insurance, or whether groups are covered in the same program or have their own program. The latter is important, as coverage was usually extended to urban and rural workers in different programs in continental European countries, with programs for the rural sector coming later than for the urban workers. One issue of concern is that some countries – the present day unemployment insurance in the UK being one example – have enacted two, or even up to three, major programs covering the same risk, for instance with the first being a social insurance program and the second a means-tested program. In order to deal with the presence of such dual-programs, we follow the same strategy as Mares (2005). First, we code each independent program using the universalism metric, and then we take the average of these program scores to arrive at the final universalism score (as observant readers will note from Figure A.1, the universalism scores are not all integer values, and this is the reason). It is important to note that in order to be considered as a dual or triple system, entitlements for the second program must be independent of the first program. A (second) program will not be coded as an independent program if payment in this program is dependent on having received payments from the first program. This follows from the fact that eligibility for the continuation benefit is dependent on first having qualified for the first program. It is therefore hard to consider these as separate programs, which our scoring reflects.

In addition, if a country has enacted a social insurance program covering industrial workers and small-firm workers in urban areas and a second social insurance program for rural workers, we decided to count these groups as if they were covered in the same system. In this instance (if no other groups were covered), the program would be given a universalism score of 4. An alternative solution would have been to first score the two programs independently, and then take the average of two programs as the final score. What this approach takes into account is the degree of segmentation, as coverage was extended through different programs with different conditions and benefits instead of covering both groups in the same program. Following the alternative approach would have resulted in a universalism score of 2.5 (rural program = universalism score of 2; urban program = universalism score of 3; final universalism score 2+3/2 = 2.5). The two approaches obvious leads to quite important differences in scoring, and while there may be good reasons to correct for segmentation, the alternative options has larger drawbacks than benefits. In our example, a country would score higher on universalism when not covering rural workers than when covering them under a separate program,

which clearly is too penalizing. We therefore opted for the first approach in coding the number of groups covered to arrive at the final universalism score.

The perhaps primary source of bias in our coding is that "*de jure* sources" (and especially the SSPTW) are not always explicit as to how many groups are covered. Sometimes the law specifies "all employees" as eligible, with temporary and domestic workers included in the definition of employees, whereas other times, "all employees" only refer to employees under long-term contracts, and not those in domestic employment. Sometimes additional country sources can be used to determine which definition of employees was used – and we have gone lengths to identify and assess such sources – but in many instances the law itself is ambiguous. In these instances, we therefore developed the following rule of thumb: when "only employees" are stated as covered, we coded the system as covering wage and salaried workers in both industry and agriculture independent of firm size. When instead the law states that "all employees" are covered, we coded the system as covering all forms of wage and salaried work, including temporary, students and domestic workers. The only excluded categories in these systems are self-employed and employers.

As a final word of caution we want to highlight that even if we find our coding procedures clearer and more consistent than previous coding efforts conducted over the same numbers of countries, the SPAW dataset can still be considered "work in progress". As more sources become obtainable, and as scholars and others correct and point out errors in our coding, we will update the SPAW dataset and make these improved versions available to the public.

## A.2 Descriptive statsitics and sources for control variables

| Variable name | Operationalization | Source |
|---|---|---|
| Region dummies | Eight regions: Eastern Europe and Soviet Union; Latin America, North Africa and Middle East; sub-Saharan Africa; Western Europe and British settler colonies; East Asia; Southeast Asia and the Pacific; South Asia | Miller (2015) |
| GDP per capita | The natural logarithm of real GDP per capita, PPP-adjusted | Maddison (2007) |
| Population size | The natural logarithm of (inhabitants/1000) | Maddison (2007) |
| Ethnic Fractionalization index | $1 - \sum_i s_i^2$ where $s_i$ is the population share of group $i$ | Alesina et al. (2003) |
| Urbanization | Percentage share of population living in urban areas | Miller (2015) |
| Resource dependence | $\frac{\text{Oil+gas+coal+metals revenues}}{GDP}$ | Miller (2015) |
| Military Size | Percentage share of population in armed forces | Miller (2015) |
| Regime duration | The natural logarithm of (regime duration+1) | Geddes, Wright and Frantz (2014) |

Table A.1: Additional information on the central control variables used in the paper.

| Variable\Statistic | Mean | Standard deviation | Minimum | Maximum |
|---|---|---|---|---|
| Old-age pension system | 0.71 | 0.45 | 0 | 1 |
| Democracy (BMR) | 0.39 | 0.48 | 0 | 1 |
| Ln GDP per capita | 8.11 | 1.02 | 5.38 | 11.08 |
| Ln population | 9.00 | 1.48 | 5.33 | 14.06 |
| Ethnic fractionalization | 0.42 | 0.25 | 0.00 | 0.93 |
| Urbanization | 37.19 | 24.25 | 0 | 100 |
| Size of military | 0.63 | 0.69 | 0 | 12.73 |
| Resource dependence | 4.12 | 9.55 | 0 | 100 |

Table A.2: Descriptive statistics for the 7881 observations (and variables) entering Model A3, Table 1 in the paper.

| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
|---|---|---|---|---|---|---|
| Democracy (BMR) | 0.023 | -0.025 | 0.080 | 0.055 | -0.076 | -0.016 |
| | (0.06) | (-0.07) | (0.22) | (0.13) | (-0.19) | (-0.04) |
| Ln GDP p.c. | -0.010 | -0.140 | -0.106 | -0.201 | -0.417 | -0.251 |
| | (-0.04) | (-0.49) | (-0.36) | (-0.64) | (-1.16) | (-0.79) |
| Ln population | 0.449** | 0.431** | 0.413** | 0.414** | 0.423** | 0.342* |
| | (2.53) | (2.43) | (2.36) | (2.28) | (2.16) | (1.84) |
| Ethnic fractionaliz. | -0.956 | -1.029 | -0.857 | -1.004 | -0.940 | -1.330 |
| | (-1.02) | (-1.07) | (-0.91) | (-1.06) | (-0.92) | (-1.49) |
| Urbanization | 0.066*** | 0.062*** | 0.065*** | 0.063*** | 0.055*** | 0.062*** |
| | (4.04) | (3.96) | (3.92) | (3.45) | (2.66) | (3.76) |
| Size military | -0.003 | -0.007 | -0.061 | -0.058 | -0.093 | -0.019 |
| | (-0.02) | (-0.04) | (-0.30) | (-0.28) | (-0.44) | (-0.10) |
| Total resources inc. | -0.000*** | | | | | |
| | (-2.73) | | | | | |
| Resource dependence | | 0.001 | 0.003 | 0.002 | 0.002 | -0.002 |
| | | (0.05) | (0.17) | (0.11) | (0.12) | (-0.08) |
| Civil War | | -0.434 | | | | |
| | | (-1.30) | | | | |
| British colony | | | -0.715 | | | |
| | | | (-1.53) | | | |
| Literacy | | | | 0.002 | | |
| | | | | (0.12) | | |
| Agriculture (%) | | | | | -0.016 | |
| | | | | | (-1.17) | |
| Total trade | | | | | | 0.000* |
| | | | | | | (1.79) |
| Region dummies | Y | Y | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y | Y | Y |
| N | 7586 | 7881 | 7881 | 7773 | 7556 | 7457 |
| Countries | 137 | 137 | 137 | 137 | 137 | 136 |

Table A.3: Democracies, autocracies, and the existence of pension systems. Robustness testing by including different control variables in Model A3 from Table 1.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country, with existence of minimum old-age pension system as dependent variable. Year dummies, region dummies and constant are omitted from the table. The longest time series extend from the late 1880s to 2004. Control variables are taken either from Miller (2015) or Haber and Menaldo (2011). The regions are: Eastern Europe/Soviet Union; Latin America; North Africa/Middle East, sub-Saharan Africa; Western Europe/British settler colonies; East Asia; Southeast Asia/Pacific; South Asia

| Model | A1 | A2 | A3 | A4 | A5 | A6 |
|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy | 0.189 | 0.213 | 0.097 | 0.415 | 0.565 | 0.486 |
| | (0.45) | (0.51) | (0.24) | (1.22) | (1.56) | (1.38) |
| Ln GDP p.c. | 0.515* | 0.689** | -0.193 | 0.130 | 0.193 | -0.199 |
| | (1.74) | (2.45) | (-0.62) | (0.76) | (0.96) | (-0.61) |
| Ln population | | 0.437*** | 0.407** | | 0.305** | 0.297** |
| | | (2.72) | (2.25) | | (2.34) | (2.11) |
| Ethnic fraction. | | -0.606 | -1.033 | | -0.261 | -0.685 |
| | | (-0.59) | (-1.05) | | (-0.42) | (-0.97) |
| Urbanization | | | 0.067*** | | | 0.029** |
| | | | (3.93) | | | (2.53) |
| Size military | | | 0.004 | | | 0.119 |
| | | | (0.02) | | | (1.11) |
| Resource dependence | | | 0.004 | | | 0.002 |
| | | | (0.22) | | | (0.09) |
| Region dummies | Y | Y | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y | Y | Y |
| N | 9081 | 8224 | 7770 | 2108 | 1817 | 1660 |

Table A.4: Democracies, autocracies, and existence (A1–A3) or adoption (A4–A6) of pension systems. Robustness testing when lagging all independent variables 1 year.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country. Existence of minimum old-age pension system is dependent variable in A1–A3 and adoption in A4–A6 (here, countries already having systems are omitted). Year dummies, region dummies and constant are omitted from table. Maximum time series (independent variables) extend from late 1880s–2003.

| Model | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 |
|---|---|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy | 0.559 | 0.919** | 0.668 | 0.497 | 0.369 | 0.309 | 0.415 | 0.361 |
| | (1.42) | (2.24) | (1.58) | (1.45) | (1.10) | (0.94) | (1.27) | (1.13) |
| Ln GDP p.c. | 0.203 | 0.401* | 0.169 | 0.198 | -0.099 | 0.059 | 0.098 | -0.142 |
| | (1.07) | (1.66) | (0.44) | (1.02) | (-0.30) | (0.37) | (0.53) | (-0.45) |
| Ln population | | 0.471*** | 0.479** | 0.335*** | 0.306** | | 0.227** | 0.188 |
| | | (2.62) | (2.39) | (2.67) | (2.26) | | (2.02) | (1.63) |
| Ethnic fractionalization | | -0.558 | -1.266 | -0.228 | -0.713 | | 0.443 | 0.340 |
| | | (-0.69) | (-1.54) | (-0.38) | (-1.03) | | (0.75) | (0.52) |
| Urbanization | | | 0.032* | | 0.031*** | | | 0.014 |
| | | | (1.84) | | (2.58) | | | (1.32) |
| Size military | | | -0.131 | | -0.045 | | | 0.142 |
| | | | (-0.49) | | (-0.45) | | | (1.31) |
| Resource dependence | | | -0.013 | | -0.010 | | | 0.002 |
| | | | (-0.50) | | (-0.45) | | | (0.12) |
| Region dummies | Y | Y | Y | Y | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y | Y | | | |
| Linear time trend | | | | | | Y | Y | Y |
| Years w.o. pension dummies | Y | Y | Y | | | | | |
| Year w.o. pension cubic splines | | | | Y | Y | Y | Y | Y |
| N | 824 | 724 | 668 | 1316 | 1225 | 5286 | 4795 | 3202 |

Table A.5: Democracies, autocracies, and adoption of pension systems. Robustness testing when including dummies for years without pension systems or cubic splines on number of years without pension systems to further account for temporal dependence.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country. Adoption of minimum old-age pension system is dependent variable (countries already having systems are omitted). Year dummies, linear time trend region dummies, dummies for year without pensions, cubic splines for year without pensions and constant are omitted from table. Maximum time series (independent variables) extend from late 1880s–2003. Please note that the models using dummies for year without pensions have very few observations when also including year dummies. We also tested such models substituting the year dummies with a linear time trend, but these models did not converge. Also, the most parsimonious model (only BMR, GDP p.c. and region dummies) that included year dummies and cubic splines for years without pension did not converge.

| Model | A1 | A2 | A3 | A4 |
|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Polity 2 | 0.019 | 0.017 | 0.009 | 0.024 |
| | (0.73) | (0.68) | (0.34) | (1.05) |
| Ln GDP p.c. | 0.562* | 0.747*** | -0.039 | 0.315 |
| | (1.89) | (2.65) | (-0.13) | (1.64) |
| Ln population | | 0.387** | 0.355** | 0.258** |
| | | (2.47) | (2.03) | (2.14) |
| Ethnic fraction. | | -0.565 | -1.039 | -0.267 |
| | | (-0.57) | (-1.11) | (-0.44) |
| Urbanization | | | 0.060*** | |
| | | | (3.91) | |
| Size military | | | -0.045 | |
| | | | (-0.21) | |
| Resource dependence | | | 0.003 | |
| | | | (0.18) | |
| Region dummies | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y |
| N | 9091 | 8316 | 7886 | 1364 |
| Countries | 139 | 137 | 137 | 111 |

Table A.6: Democracies, autocracies, and the existence (A1–A3) or adoption (A4) of pension systems (the two other models on adoption, resembling A1 and A3 did not converge). Robustness testing using Polity 2 rather than BMR.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country, with existence of minimum old-age pension system as dependent variable in A1–A3 and introduction of such a system as dependent in A4 (here, countries already having such systems are omitted). Year dummies, region dummies and constant are omitted from the table.

| Model | A1 | A2 | A3 | A4 | A5 | A6 |
|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.331 | 0.195 | 0.126 | 0.692** | 0.628* | 0.562 |
| | (0.61) | (0.41) | (0.27) | (2.06) | (1.78) | (1.61) |
| Ln GDP p.c. | 0.409 | 0.758*** | 0.149 | 0.013 | 0.278 | 0.132 |
| | (1.44) | (2.68) | (0.50) | (0.07) | (1.36) | (0.41) |
| Ln population | | 0.537*** | 0.583*** | | 0.380*** | 0.462*** |
| | | (3.19) | (2.97) | | (2.61) | (3.09) |
| Ethnic fraction. | | 0.165 | -0.288 | | 0.068 | -0.432 |
| | | (0.15) | (-0.28) | | (0.09) | (-0.53) |
| Urbanization | | | 0.058*** | | | 0.019 |
| | | | (3.40) | | | (1.39) |
| Size military | | | -0.007 | | | 0.012 |
| | | | (-0.03) | | | (0.09) |
| Resource dependence | | | -0.001 | | | 0.001 |
| | | | (-0.06) | | | (0.06) |
| Region dummies | Y | Y | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y | Y | Y |
| N | 6366 | 6239 | 6073 | 772 | 772 | 760 |

Table A.7: Democracies, autocracies, and the existence (A1–A3) or adoption (A4–A6) of pension systems. Robustness testing on restricted sample from 1946.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country, with existence of minimum old-age pension system as dependent variable in A1–A3 and introduction of such a system as dependent in A4–A6 (here, countries already having such systems are omitted). Year dummies, region dummies and constant are omitted from the table.

| Model | A1 | A2 | A3 | A4 | A5 | A6 |
|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.403 | 0.262 | 0.178 | 0.746** | 0.687* | 0.654* |
| | (0.74) | (0.54) | (0.38) | (2.11) | (1.84) | (1.72) |
| Communist regime | 1.916 | 1.330 | 1.637 | 0.981* | 0.941* | 1.146** |
| | (0.91) | (0.74) | (0.95) | (1.77) | (1.86) | (2.12) |
| Ln GDP p.c. | 0.478 | 0.794*** | 0.172 | 0.029 | 0.302 | 0.164 |
| | (1.62) | (2.69) | (0.56) | (0.16) | (1.43) | (0.50) |
| Ln population | | 0.519*** | 0.558*** | | 0.387*** | 0.468*** |
| | | (2.98) | (2.76) | | (2.60) | (3.09) |
| Ethnic fraction. | | 0.316 | -0.116 | | 0.240 | -0.257 |
| | | (0.28) | (-0.11) | | (0.32) | (-0.31) |
| Urbanization | | | 0.064*** | | | 0.020 |
| | | | (3.45) | | | (1.41) |
| Size military | | | -0.140 | | | -0.075 |
| | | | (-0.55) | | | (-0.53) |
| Resource dependence | | | -0.002 | | | 0.001 |
| | | | (-0.15) | | | (0.08) |
| Region dummies | Y | Y | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y | Y | Y |
| N | 6330 | 6203 | 6038 | 765 | 765 | 753 |

Table A.8: Democracies, autocracies, and the existence (A1–A3) or adoption (A4–A6) of pension systems. Robustness testing when controlling for Communist regimes (post-1946 sample, using coding from Cheibub, Gandhi and Vreeland 2010).

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country, with existence of minimum old-age pension system as dependent variable in A1–A3 and introduction of such a system as dependent in A4–A6 (here, countries already having such systems are omitted). Year dummies, region dummies and constant are omitted from the table.

| Model | A1 | A2 | A3 | A4 | A5 | A6 |
|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (DD) | 1.025** | 0.807* | 0.595 | 0.943*** | 0.870** | 0.795** |
| | (2.06) | (1.71) | (1.33) | (2.66) | (2.41) | (2.05) |
| Ln GDP p.c. | 0.316 | 0.676** | 0.123 | 0.047 | 0.333 | 0.174 |
| | (1.09) | (2.14) | (0.39) | (0.26) | (1.55) | (0.54) |
| Ln population | | 0.497*** | 0.559*** | | 0.412** | 0.500*** |
| | | (2.89) | (2.73) | | (2.54) | (2.96) |
| Ethnic fractionaliz. | | 0.421 | -0.096 | | 0.242 | -0.243 |
| | | (0.36) | (-0.09) | | (0.32) | (-0.29) |
| Urbanization | | | 0.057*** | | | 0.019 |
| | | | (3.46) | | | (1.34) |
| Size military | | | -0.100 | | | 0.012 |
| | | | (-0.37) | | | (0.09) |
| Resource dependence | | | 0.001 | | | 0.003 |
| | | | (0.03) | | | (0.19) |
| Region dummies | Y | Y | Y | Y | Y | Y |
| Year dummies | Y | Y | Y | Y | Y | Y |
| N | 6232 | 6105 | 5969 | 753 | 753 | 741 |

Table A.9: Democracies, autocracies, and the existence (A1–A3) or adoption (A4–A6) of pension systems. Robustness testing on restricted sample from 1946 and using the DD measure of democracy.
Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Logit regressions with errors clustered on country, with existence of minimum old-age pension system as dependent variable in A1–A3 and introduction of such a system as dependent in A4–A6 (here, countries already having such systems are omitted). Year dummies, region dummies and constant are omitted from the table.

## A.3 Robustness tests and extensions for Section 5.2

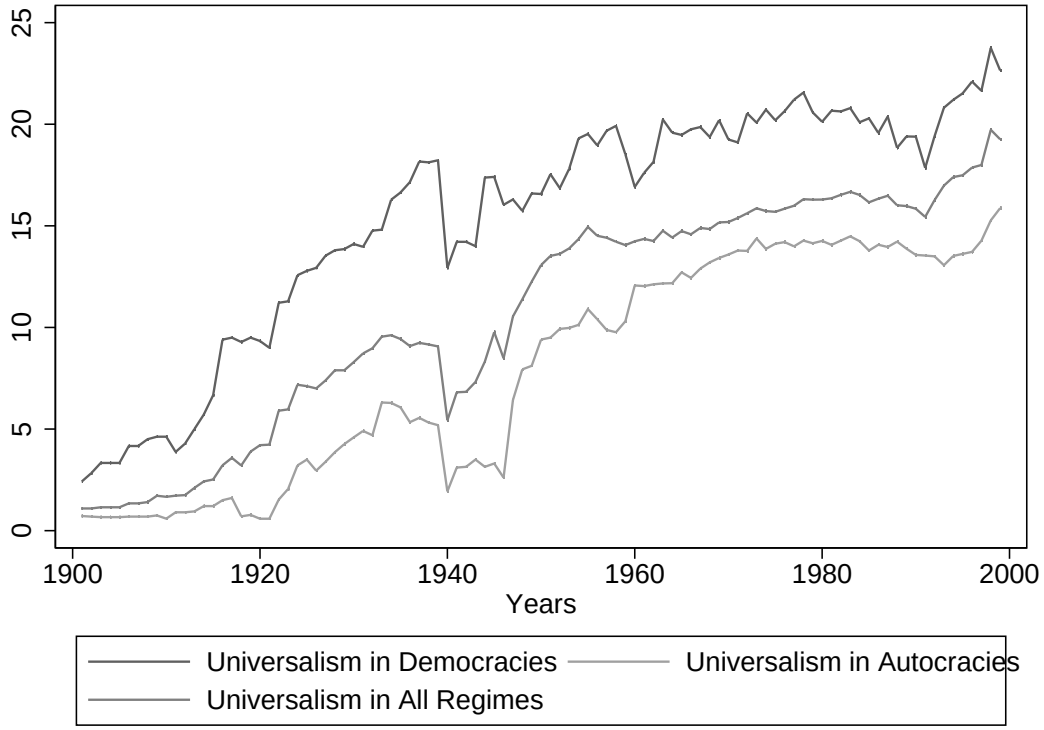


Figure A.2: Average score on Welfare State Universalism Index (aggregated over the six major social policy programs; ranging from 0–54) – for democracies, for autocracies, and average for all observations – over time.

| Model | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Random Eff. | Random Eff. | Fixed Eff | Fixed Eff. | ECM | ECM | System GMM | System GMM | System GMM | System GMM |
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.333** | 0.287* | 0.320** | 0.281 | 0.168** | 0.162** | 0.259*** | 0.213** | 0.289** | 0.306** |
| | (2.14) | (1.66) | (2.00) | (1.59) | (2.52) | (2.21) | (2.67) | (2.43) | (2.07) | (2.07) |
| Δ Democracy | | | | | 0.043 | 0.044 | | | | |
| | | | | | (1.11) | (1.06) | | | | |
| Ln GDP p.c. | 0.275 | 0.227 | 0.203 | 0.266 | 0.151** | 0.148** | 0.379*** | 0.383** | 0.385*** | 0.373** |
| | (1.63) | (1.24) | (1.02) | (1.33) | (2.01) | (2.01) | (3.03) | (2.37) | (3.93) | (2.41) |
| Δ Ln GDP p.c. | | | | | 0.009 | 0.075 | | | | |
| | | | | | (0.08) | (0.66) | | | | |
| Ln Population | | 0.037 | | 0.310 | | -0.058 | | -0.016 | | -0.078 |
| | | (0.21) | | (0.80) | | (-0.39) | | (-0.14) | | (-1.01) |
| Δ Ln Popul. | | | | | | 0.219 | | | | |
| | | | | | | (0.52) | | | | |
| Urbanization | | 0.022* | | 0.022 | | 0.008 | | 0.000 | | -0.002 |
| | | (1.70) | | (1.50) | | (1.41) | | (0.04) | | (-0.21) |
| Δ Urbanization | | | | | | 0.000 | | | | |
| | | | | | | (0.02) | | | | |
| Size of military | | 0.090 | | 0.087 | | 0.073* | | 0.035 | | 0.047 |
| | | (0.92) | | (0.91) | | (1.85) | | (0.67) | | (0.88) |
| Δ | Size milit. | | | | | 0.014 | | | | |
| | | | | | | (0.34) | | | | |
| Resource dependence | | -0.006* | | -0.006* | | -0.001 | | -0.002 | | -0.003 |
| | | (-1.77) | | (-1.77) | | (-0.80) | | (-0.74) | | (-0.88) |
| Δ Res. dep. | | | | | | -0.002 | | | | |
| | | | | | | (-1.05) | | | | |
| Lagged dep. var. | | | | | -0.349*** | -0.352*** | 0.260*** | 0.276*** | 0.289*** | 0.309*** |
| | | | | | (-8.58) | (-8.46) | (9.18) | (8.55) | (10.43) | (9.79) |
| Year dummies | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| N | 5064 | 4678 | 5064 | 4678 | 5006 | 4583 | 4910 | 4543 | 4910 | 4543 |
| Countries | 132 | 131 | 132 | 131 | 132 | 131 | 132 | 131 | 132 | 131 |

Table A.10: Democracies, autocracies, and the universalism of pension systems.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Regressions with universalism index score for old-age pensions as dependent variables (observations with non-existent program or means-tested program are excluded). Errors are clustered on country. Year dummies, region dummies, country dummies and constant are omitted from the table. (Non-differenced) independent variables in ECM models (A5 and A6) are lagged by one year. In A9 and A10, democracy is treated as endogenous, with four lags used for instrumentation (see Roodman 2009). A3–A8 are also reported in the paper, but the other models are not. The maximum time series extend from 1889 to 2004.

| Model | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Maternity leave | | Sickness benefits | | Work injury | | Unemployment benef. | | Family allowances | |
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.142 | 0.041 | 0.114 | -0.044 | 0.097 | 0.029 | 0.440*** | 0.414*** | 0.575 | 0.556 |
| | (1.27) | (0.33) | (0.92) | (-0.33) | (0.86) | (0.26) | (3.39) | (2.77) | (1.56) | (1.49) |
| Ln GDP p.c. | 0.147 | 0.111 | 0.110 | 0.109 | 0.021 | -0.070 | -0.309 | -0.412 | 0.385 | 0.170 |
| | (0.77) | (0.56) | (0.46) | (0.42) | (0.11) | (-0.33) | (-0.97) | (-1.28) | (1.13) | (0.51) |
| Ln Population | | 0.051 | | 0.028 | | -0.213 | | -0.780** | | -0.222 |
| | | (0.12) | | (0.06) | | (-0.62) | | (-2.19) | | (-0.30) |
| Urbanization | | 0.016 | | 0.023 | | 0.010 | | 0.022 | | 0.011 |
| | | (1.41) | | (1.64) | | (0.86) | | (1.36) | | (0.52) |
| Size of military | | -0.033 | | 0.035 | | -0.036 | | 0.240* | | -0.049 |
| | | (-0.45) | | (0.41) | | (-0.48) | | (1.87) | | (-0.23) |
| Resource Dependence | | -0.003 | | -0.007 | | 0.001 | | 0.009 | | 0.001 |
| | | (-0.82) | | (-1.39) | | (0.40) | | (0.68) | | (0.19) |
| Year dummies | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| N | 4175 | 3832 | 3620 | 3250 | 5563 | 5045 | 2196 | 1960 | 2647 | 2497 |
| Countries | 105 | 104 | 89 | 88 | 130 | 129 | 65 | 64 | 73 | 72 |

Table A.11: Democracies, autocracies, and universalism of various social policy programs.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. All regressions are OLS Fixed Effects with universalism score for social policy program (as labeled by top row) as dependent variable (observations with non-existent program or means-tested program are excluded). Errors are clustered on country. Year dummies, country dummies and constant are omitted from the table.

| Cut-off dep. var. = 1 | Univ.≥ 5 | Univ.≥ 5 | Univ.≥ 6 | Univ.≥ 6 | Univ.≥ 7 | Univ.≥ 7 | Univ.≥ 8 | Univ.≥ 8 | Univ.≥ 9 | Univ.≥ 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.353 | 0.615** | 0.153 | 0.460 | 0.216 | 0.688** | 0.175 | 0.682** | -0.234 | 0.290 |
| | (1.41) | (2.29) | (0.58) | (1.60) | (0.76) | (2.55) | (0.59) | (2.48) | (-0.70) | (1.03) |
| Ln GDP$_{p.c.}$ | 0.344** | 0.297 | 0.094 | 0.371 | -0.017 | 0.393 | -0.078 | 0.342 | -0.335* | -0.088 |
| | (2.25) | (1.26) | (0.58) | (1.42) | (-0.10) | (1.41) | (-0.44) | (1.20) | (-1.71) | (-0.32) |
| Ln Population | | -0.261** | | -0.311*** | | -0.401*** | | -0.467*** | | -0.569*** |
| | | (-2.36) | | (-2.84) | | (-3.55) | | (-4.11) | | (-4.81) |
| Urbanization | | 0.011 | | -0.008 | | -0.020* | | -0.022* | | -0.018 |
| | | (0.95) | | (-0.76) | | (-1.80) | | (-1.89) | | (-1.37) |
| Size of military | | 0.265 | | 0.203 | | 0.339 | | 0.362 | | 0.444** |
| | | (1.32) | | (0.82) | | (1.36) | | (1.44) | | (1.96) |
| Resource dep. | | -0.009 | | -0.002 | | 0.001 | | 0.001 | | 0.006 |
| | | (-0.81) | | (-0.23) | | (0.10) | | (0.10) | | (0.56) |
| Year dummies | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| N | 7147 | 6193 | 7147 | 6193 | 7147 | 6193 | 7147 | 6193 | 7147 | 6193 |

Table A.12: Democracies, autocracies, and the universalism of pension systems. Robustness testing by running logit regressions with dummy dependent variable based on different cut-offs on universalism index (see top row).

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Observations without major pension programs or only means-tested programs are excluded.

| | RE Ordinal Logit | | RE Ordinal Probit | |
|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.649*** | 0.599*** | 0.477*** | 0.419*** |
| | (6.25) | (5.36) | (8.61) | (7.07) |
| Ln GDP p.c. | 0.787*** | 0.633*** | 0.391*** | 0.313*** |
| | (6.57) | (4.74) | (6.26) | (4.46) |
| Ln Population | | 0.712*** | | 0.239** |
| | | (3.71) | | (2.47) |
| Urbanization | | 0.043*** | | 0.027*** |
| | | (6.42) | | (7.96) |
| Size of military | | 0.531*** | | 0.220*** |
| | | (6.40) | | (4.88) |
| Resource Dependence | | -0.014*** | | -0.007** |
| | | (-2.89) | | (-2.47) |
| Year dummies | Y | Y | Y | Y |
| N | 5064 | 4678 | 5064 | 4678 |

Table A.13: Democracies, autocracies, and the universalism of pension systems. Robustness testing by running random effects ordinal logit or random effects ordinal probit regressions.
Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The maximum time series extend from the late 1880s to 2004. Constants and year dummies are omitted from the table.

| Model | No lag (benchmark) | | 1-year lag | | 3-year lag | | 5-year lag | |
|---|---|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Democracy (BMR) | 0.320** | 0.281 | 0.347** | 0.302 | 0.348** | 0.300* | 0.361** | 0.303* |
| | (2.00) | (1.59) | (2.09) | (1.65) | (2.12) | (1.67) | (2.22) | (1.73) |
| Ln GDP p.c. | 0.203 | 0.266 | 0.213 | 0.259 | 0.241 | 0.273 | 0.288 | 0.289 |
| | (1.02) | (1.33) | (1.07) | (1.32) | (1.20) | (1.45) | (1.36) | (1.55) |
| Ln Population | | 0.310 | | 0.314 | | 0.312 | | 0.306 |
| | | (0.80) | | (0.82) | | (0.83) | | (0.81) |
| Urbanization | | 0.022 | | 0.022 | | 0.021 | | 0.020 |
| | | (1.50) | | (1.46) | | (1.44) | | (1.32) |
| Size of military | | 0.087 | | 0.088 | | 0.103 | | 0.145 |
| | | (0.91) | | (0.90) | | (1.00) | | (1.52) |
| Resource dependence | | -0.006* | | -0.005 | | -0.004 | | -0.003 |
| | | (-1.77) | | (-1.28) | | (-0.99) | | (-0.56) |
| Year dummies | Y | Y | Y | Y | Y | Y | Y | Y |
| N | 5064 | 4678 | 5058 | 4655 | 5016 | 4589 | 4931 | 4477 |

Table A.14: Democracies, autocracies, and universalism of pension systems. Robustness testing when lagging all independent variables, with lag-length specified in top row.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. All regressions are OLS Fixed Effects with Universalism Index for pensions is dependent variable, and observations without pension program or only means-tested program are excluded. Country dummies, year dummies and constant are omitted from table. Errors are clustered on country.

## A.4 Robustness tests and extensions for Section 5.3

| Variable\Statistic | Mean | Standard deviation | Minimum | Maximum |
|---|---|---|---|---|
| Regime failure | 0.05 | 0.23 | 0 | 1 |
| Old-age pension system | 0.71 | 0.41 | 0 | 1 |
| Regional pension share | 0.82 | 0.41 | 0 | 1 |
| Global pension share | 0.85 | 0.21 | 0.53 | 0.98 |
| Military regime | 0.15 | 0.36 | 0 | 1 |
| Monarchy | 0.11 | 0.31 | 0 | 1 |
| Personalist regime | 0.26 | 0.44 | 0 | 1 |
| Other autocracy | 0.01 | 0.11 | 0 | 1 |
| Ln GDP per capita | 7.81 | 0.93 | 5.78 | 11.08 |
| Ln population | 9.10 | 1.36 | 5.97 | 14.06 |
| Ethnic fractionalization | 0.51 | 0.25 | 0.00 | 0.93 |
| Urbanization | 33.97 | 20.88 | 0 | 100 |
| Size of military | 0.66 | 0.74 | 0 | 7.68 |
| Resource dependence | 6.42 | 12.73 | 0 | 100 |

Table A.15: Descriptive statistics for the 3248 observations (and variables) entering Model D3, Table 4 in the paper.

| Model | Logit | Logit | Logit | Logit | Logit | Logit | Probit | Probit | Probit | Probit | Probit | Probit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Pension system | -0.050 | -0.062 | -0.038 | -0.040 | 0.076 | 0.080 | -0.026 | -0.034 | -0.013 | -0.012 | 0.045 | 0.048 |
| | (-0.22) | (-0.25) | (-0.16) | (-0.16) | (0.30) | (0.30) | (-0.24) | (-0.28) | (-0.12) | (-0.10) | (0.37) | (0.39) |
| Military regime | 1.566*** | 1.687*** | 1.374*** | 1.524*** | 1.444*** | 1.570*** | 0.751*** | 0.819*** | 0.662*** | 0.744*** | 0.709*** | 0.781*** |
| | (8.52) | (8.42) | (6.44) | (6.62) | (6.51) | (6.56) | (8.54) | (8.42) | (6.61) | (6.70) | (6.53) | (6.56) |
| Monarchy | -0.075 | -0.140 | -0.096 | -0.178 | -0.210 | -0.284 | -0.032 | -0.069 | -0.034 | -0.086 | -0.093 | -0.140 |
| | (-0.20) | (-0.37) | (-0.20) | (-0.36) | (-0.45) | (-0.58) | (-0.20) | (-0.43) | (-0.16) | (-0.40) | (-0.45) | (-0.63) |
| Personalist regime | 0.895*** | 0.949*** | 0.765*** | 0.832*** | 0.812*** | 0.868*** | 0.408*** | 0.443*** | 0.356*** | 0.399*** | 0.391*** | 0.427*** |
| | (4.81) | (4.73) | (3.62) | (3.58) | (3.74) | (3.68) | (4.83) | (4.75) | (3.79) | (3.75) | (3.93) | (3.86) |
| Other autocracy | 1.158* | 1.048 | 1.513*** | 1.468** | 1.275** | 1.253** | 0.520* | 0.472 | 0.695*** | 0.664** | 0.582** | 0.561** |
| | (1.76) | (1.43) | (2.82) | (2.46) | (2.55) | (2.27) | (1.69) | (1.39) | (2.67) | (2.30) | (2.24) | (1.97) |
| Ln GDP p.c. | -0.216 | -0.243 | -0.428** | -0.463** | -0.355* | -0.381* | -0.099 | -0.113 | -0.191** | -0.206** | -0.171* | -0.182* |
| | (-1.28) | (-1.37) | (-2.07) | (-2.08) | (-1.71) | (-1.75) | (-1.33) | (-1.44) | (-2.09) | (-2.13) | (-1.84) | (-1.89) |
| Ln Population | -0.108* | -0.123* | -0.126 | -0.145 | -0.131 | -0.147 | -0.048* | -0.056* | -0.059 | -0.070 | -0.061 | -0.070 |
| | (-1.78) | (-1.92) | (-1.42) | (-1.52) | (-1.46) | (-1.53) | (-1.66) | (-1.83) | (-1.42) | (-1.56) | (-1.47) | (-1.57) |
| Ethnic fractionaliz. | -0.295 | -0.274 | 0.125 | 0.154 | 0.177 | 0.206 | -0.147 | -0.139 | 0.054 | 0.064 | 0.068 | 0.077 |
| | (-0.85) | (-0.75) | (0.29) | (0.33) | (0.40) | (0.43) | (-0.91) | (-0.82) | (0.28) | (0.30) | (0.34) | (0.36) |
| Urbanization | 0.007 | 0.008 | 0.002 | 0.002 | 0.002 | 0.002 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 |
| | (1.01) | (1.03) | (0.22) | (0.25) | (0.26) | (0.26) | (0.85) | (0.86) | (0.01) | (0.04) | (0.05) | (0.05) |
| Size of military | -0.286 | -0.300 | -0.205 | -0.225 | -0.228 | -0.246 | -0.122 | -0.128 | -0.084 | -0.095 | -0.089 | -0.097 |
| | (-1.59) | (-1.60) | (-1.04) | (-1.09) | (-1.10) | (-1.14) | (-1.59) | (-1.61) | (-0.97) | (-1.05) | (-1.00) | (-1.06) |
| Resource dependence | -0.006 | -0.006 | -0.001 | -0.001 | -0.002 | -0.002 | -0.002 | -0.002 | -0.000 | -0.000 | -0.001 | -0.001 |
| | (-0.56) | (-0.53) | (-0.15) | (-0.14) | (-0.18) | (-0.16) | (-0.45) | (-0.43) | (-0.03) | (-0.05) | (-0.25) | (-0.23) |
| Ln regime duration | | 0.121 | | 0.130 | | 0.107 | | 0.065* | | 0.069* | | 0.059 |
| | | (1.44) | | (1.63) | | (1.37) | | (1.66) | | (1.76) | | (1.51) |
| Time trend | -0.005 | -0.007 | 0.007 | 0.004 | | | -0.001 | -0.003 | 0.004 | 0.003 | | |
| | (-0.65) | (-0.91) | (0.77) | (0.45) | | | (-0.43) | (-0.76) | (1.03) | (0.61) | | |
| Year dummies | | | | | Y | Y | | | | | Y | Y |
| Region dummies | | | Y | Y | Y | Y | | | Y | Y | Y | Y |
| N | 3248 | 3248 | 3248 | 3248 | 3120 | 3120 | 3248 | 3248 | 3248 | 3248 | 3120 | 3120 |
| Countries | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |

Table A.16: "Naive" Logit and Probit regressions, assuming existence of pension programs is exogenously given, with autocratic regime breakdown as dependent variable.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Errors are clustered on country. The maximum time series extend from the 1946 to 2004.

| Model | Logit | Logit | Logit | Logit | Logit | Logit | Probit | Probit | Probit | Probit | Probit | Probit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Pension system | -0.238 | -0.248 | -0.413* | -0.416* | -0.417* | -0.419* | -0.125 | -0.134 | -0.204* | -0.208* | -0.207* | -0.209* |
| | (-1.19) | (-1.20) | (-1.93) | (-1.92) | (-1.72) | (-1.71) | (-1.26) | (-1.30) | (-1.92) | (-1.92) | (-1.80) | (-1.79) |
| Military regime | 1.405*** | 1.472*** | 1.180*** | 1.222*** | 1.197*** | 1.250*** | 0.677*** | 0.723*** | 0.575*** | 0.610*** | 0.606*** | 0.638*** |
| | (7.17) | (6.93) | (5.18) | (4.94) | (4.84) | (4.76) | (7.30) | (7.03) | (5.42) | (5.21) | (5.17) | (5.09) |
| Monarchy | -0.198 | -0.239 | 0.115 | 0.089 | 0.185 | 0.153 | -0.099 | -0.127 | 0.058 | 0.035 | 0.098 | 0.076 |
| | (-0.52) | (-0.63) | (0.27) | (0.20) | (0.41) | (0.33) | (-0.60) | (-0.76) | (0.31) | (0.17) | (0.49) | (0.36) |
| Personalist regime | 0.853*** | 0.883*** | 0.693*** | 0.711*** | 0.705*** | 0.727*** | 0.396*** | 0.417*** | 0.327*** | 0.343*** | 0.355*** | 0.369*** |
| | (3.89) | (3.87) | (2.96) | (2.92) | (2.99) | (2.95) | (3.98) | (3.97) | (3.12) | (3.08) | (3.35) | (3.28) |
| Other autocracy | 0.436 | 0.369 | 0.598* | 0.581 | 0.762* | 0.735 | 0.184 | 0.150 | 0.258 | 0.242 | 0.332 | 0.315 |
| | (0.99) | (0.75) | (1.71) | (1.54) | (1.65) | (1.50) | (0.96) | (0.69) | (1.60) | (1.35) | (1.58) | (1.40) |
| Ln GDP p.c. | 0.054 | 0.042 | -0.097 | -0.106 | -0.125 | -0.134 | 0.024 | 0.015 | -0.045 | -0.051 | -0.064 | -0.070 |
| | (0.34) | (0.26) | (-0.53) | (-0.57) | (-0.65) | (-0.69) | (0.32) | (0.19) | (-0.53) | (-0.60) | (-0.73) | (-0.78) |
| Ln Population | -0.072 | -0.080 | -0.024 | -0.030 | -0.040 | -0.046 | -0.035 | -0.040 | -0.013 | -0.018 | -0.024 | -0.028 |
| | (-1.33) | (-1.43) | (-0.30) | (-0.34) | (-0.47) | (-0.51) | (-1.30) | (-1.45) | (-0.35) | (-0.44) | (-0.61) | (-0.66) |
| Ethnic fractionaliz. | 0.046 | 0.064 | 0.409 | 0.418 | 0.493 | 0.501 | 0.020 | 0.027 | 0.197 | 0.200 | 0.241 | 0.242 |
| | (0.11) | (0.15) | (0.91) | (0.90) | (1.01) | (1.00) | (0.10) | (0.13) | (0.99) | (0.97) | (1.14) | (1.12) |
| Urbanization | -0.006 | -0.006 | -0.013 | -0.012 | -0.014 | -0.014 | -0.003 | -0.003 | -0.006 | -0.006 | -0.006 | -0.006 |
| | (-0.85) | (-0.82) | (-1.52) | (-1.50) | (-1.52) | (-1.50) | (-0.89) | (-0.84) | (-1.61) | (-1.57) | (-1.64) | (-1.62) |
| Size of military | -0.221 | -0.229 | -0.047 | -0.050 | -0.107 | -0.110 | -0.104 | -0.110 | -0.029 | -0.032 | -0.056 | -0.058 |
| | (-1.36) | (-1.38) | (-0.26) | (-0.28) | (-0.58) | (-0.58) | (-1.47) | (-1.52) | (-0.36) | (-0.39) | (-0.68) | (-0.69) |
| Resource dependence | -0.006 | -0.006 | -0.000 | -0.000 | 0.000 | 0.000 | -0.002 | -0.002 | 0.001 | 0.001 | 0.000 | 0.000 |
| | (-0.63) | (-0.62) | (-0.05) | (-0.05) | (0.01) | (0.02) | (-0.55) | (-0.52) | (0.14) | (0.13) | (0.06) | (0.06) |
| Ln regime duration | | 0.070 | | 0.037 | | 0.045 | | 0.045 | | 0.030 | | 0.027 |
| | | (0.76) | | (0.40) | | (0.46) | | (1.02) | | (0.67) | | (0.58) |
| Time trend | -0.004 | -0.005 | 0.010 | 0.009 | | | -0.002 | -0.003 | 0.005 | 0.004 | | |
| | (-0.50) | (-0.65) | (0.99) | (0.91) | | | (-0.47) | (-0.68) | (1.07) | (0.90) | | |
| Year dummies | | | | | Y | Y | | | | | Y | Y |
| Region dummies | | | Y | Y | Y | Y | | | Y | Y | Y | Y |
| N | 3247 | 3247 | 3247 | 3247 | 3087 | 3087 | 3247 | 3247 | 3247 | 3247 | 3087 | 3087 |
| Countries | 98 | 98 | 98 | 98 | 97 | 97 | 98 | 98 | 98 | 98 | 97 | 97 |

Table A.17: Logit and Probit regressions with autocratic regime breakdown as dependent variable; independent variables (including old-age pensions) lagged by 5 years.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Errors are clustered on country.

| Model | Logit | Logit | Logit | Logit | Logit | Logit | Probit | Probit | Probit | Probit | Probit | Probit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Regime breakdown | 0.208 | 0.191 | 0.459* | 0.456* | 0.534* | 0.534* | 0.110 | 0.099 | 0.225* | 0.222 | 0.293* | 0.290* |
| | (0.80) | (0.71) | (1.77) | (1.69) | (1.91) | (1.91) | (0.83) | (0.72) | (1.67) | (1.58) | (1.94) | (1.89) |
| Military regime | -1.347** | -1.207 | -1.359** | -1.338** | -1.315** | -1.262** | -0.771** | -0.682* | -0.751** | -0.730** | -0.760** | -0.722** |
| | (-1.97) | (-1.62) | (-2.33) | (-2.34) | (-2.08) | (-2.05) | (-2.15) | (-1.76) | (-2.43) | (-2.29) | (-2.36) | (-2.18) |
| Monarchy | -2.101*** | -2.258*** | -1.287 | -1.315 | -1.241 | -1.324 | -1.245*** | -1.339*** | -0.763* | -0.790* | -0.722* | -0.775* |
| | (-3.24) | (-3.27) | (-1.55) | (-1.49) | (-1.44) | (-1.44) | (-3.44) | (-3.48) | (-1.83) | (-1.79) | (-1.68) | (-1.70) |
| Personalist regime | -0.362 | -0.332 | -0.672 | -0.663 | -0.675 | -0.650 | -0.192 | -0.170 | -0.397 | -0.390 | -0.406 | -0.389 |
| | (-0.69) | (-0.63) | (-1.11) | (-1.06) | (-1.07) | (-1.00) | (-0.69) | (-0.60) | (-1.20) | (-1.14) | (-1.18) | (-1.10) |
| Other autocracy | 0.126 | 0.184 | -0.085 | -0.052 | -0.142 | -0.019 | 0.097 | 0.136 | 0.072 | 0.100 | 0.061 | 0.137 |
| | (0.09) | (0.14) | (-0.07) | (-0.04) | (-0.11) | (-0.01) | (0.15) | (0.20) | (0.10) | (0.13) | (0.08) | (0.18) |
| Ln GDP p.c. | 0.117 | 0.093 | 0.429 | 0.428 | 0.449 | 0.449 | 0.006 | -0.000 | 0.184 | 0.184 | 0.190 | 0.192 |
| | (0.23) | (0.18) | (0.86) | (0.85) | (0.85) | (0.84) | (0.02) | (-0.00) | (0.78) | (0.78) | (0.79) | (0.80) |
| Ln Population | 0.074 | 0.056 | 1.073*** | 1.071*** | 1.097*** | 1.095*** | 0.056 | 0.044 | 0.570*** | 0.568*** | 0.590*** | 0.589*** |
| | (0.34) | (0.25) | (4.16) | (4.15) | (3.86) | (3.83) | (0.50) | (0.39) | (4.30) | (4.28) | (4.18) | (4.15) |
| Ethnic fractionaliz. | 0.657 | 0.717 | 1.023 | 1.019 | 1.057 | 1.039 | 0.343 | 0.382 | 0.527 | 0.527 | 0.565 | 0.560 |
| | (0.64) | (0.70) | (0.85) | (0.84) | (0.90) | (0.88) | (0.60) | (0.67) | (0.80) | (0.80) | (0.86) | (0.85) |
| Urbanization | 0.081*** | 0.081*** | 0.059*** | 0.059*** | 0.062*** | 0.063*** | 0.046*** | 0.046*** | 0.031*** | 0.031*** | 0.033*** | 0.033*** |
| | (2.93) | (2.99) | (3.32) | (3.39) | (3.06) | (3.11) | (3.32) | (3.34) | (3.19) | (3.24) | (3.12) | (3.16) |
| Size of military | -0.132 | -0.157 | -0.364 | -0.374 | -0.440 | -0.466 | -0.055 | -0.073 | -0.096 | -0.105 | -0.143 | -0.161 |
| | (-0.39) | (-0.46) | (-0.87) | (-0.89) | (-0.98) | (-1.06) | (-0.31) | (-0.41) | (-0.43) | (-0.47) | (-0.63) | (-0.71) |
| Resource dependence | 0.024 | 0.021 | 0.009 | 0.008 | 0.006 | 0.004 | 0.010 | 0.008 | 0.002 | 0.001 | -0.001 | -0.001 |
| | (0.76) | (0.70) | (0.28) | (0.25) | (0.16) | (0.11) | (0.71) | (0.65) | (0.13) | (0.10) | (-0.05) | (-0.11) |
| Ln regime duration | | 0.189 | | 0.031 | | 0.083 | | 0.123 | | 0.030 | | 0.057 |
| | | (0.98) | | (0.13) | | (0.37) | | (1.24) | | (0.26) | | (0.50) |
| Time trend | 0.021 | 0.018 | 0.062** | 0.061*** | | | 0.012 | 0.009 | 0.033*** | 0.032*** | | |
| | (1.07) | (0.85) | (2.40) | (2.66) | | | (1.18) | (0.90) | (2.61) | (2.72) | | |
| Year dummies | | | | | Y | Y | | | | | Y | Y |
| Region dummies | | | Y | Y | Y | Y | | | Y | Y | Y | Y |
| N | 3132 | 3132 | 3067 | 3067 | 2894 | 2894 | 3132 | 3132 | 3067 | 3067 | 2894 | 2894 |
| Countries | 98 | 98 | 95 | 95 | 95 | 95 | 98 | 98 | 95 | 95 | 95 | 95 |

Table A.18: Testing whether past regime failure predicts pensions. Logit and Probit regressions with old-age pensions as dependent variable; independent variables (including regime failure) lagged by 5 years.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Errors are clustered on country.

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVprobit *b/(t)* | D6 IVprobit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVprobit *b/(t)* | D10 IVprobit *b/(t)* | D11 FE 2SLS *b/(t)* | D12 FE 2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pension share region | 0.809*** | 0.794*** | 0.821*** | 0.807*** | 0.821*** | 0.807*** | 0.274** | 0.267** | 0.128 | 0.119 | 0.478*** | 0.477*** |
| | (5.42) | (5.24) | (5.23) | (5.08) | (5.24) | (5.09) | (2.14) | (2.13) | (0.81) | (0.76) | (3.63) | (3.60) |
| Pension share globally | | | -0.203 | -0.208 | -0.210 | -0.217 | 0.274 | 0.255 | | | 0.398 | 0.391 |
| | | | (-0.57) | (-0.58) | (-0.58) | (-0.60) | (0.84) | (0.78) | | | (1.32) | (1.29) |
| Military regime | -0.127* | -0.110 | -0.124* | -0.107 | -0.124* | -0.108 | -0.105* | -0.088 | -0.115* | -0.101 | -0.108 | 0.001 |
| | (-1.83) | (-1.41) | (-1.80) | (-1.37) | (-1.80) | (-1.37) | (-1.74) | (-1.28) | (-1.95) | (-1.48) | (-0.17) | (0.01) |
| Monarchy | -0.190** | -0.200** | -0.190** | -0.201** | -0.190** | -0.201** | -0.147** | -0.158** | -0.142* | -0.152** | 0.161** | 0.140* |
| | (-2.47) | (-2.54) | (-2.48) | (-2.55) | (-2.47) | (-2.55) | (-1.99) | (-2.12) | (-1.87) | (-2.00) | (2.29) | (1.90) |
| Personalist | -0.019 | -0.010 | -0.020 | -0.012 | -0.020 | -0.012 | -0.030 | -0.022 | -0.028 | -0.021 | 0.002 | 0.007 |
| | (-0.37) | (-0.20) | (-0.41) | (-0.23) | (-0.41) | (-0.23) | (-0.58) | (-0.40) | (-0.52) | (-0.37) | (0.03) | (0.10) |
| Other autocracy | 0.040 | 0.024 | 0.040 | 0.024 | 0.040 | 0.024 | -0.090 | -0.102 | -0.090 | -0.100 | -0.140** | -0.138** |
| | (0.63) | (0.38) | (0.63) | (0.39) | (0.63) | (0.38) | (-1.46) | (-1.62) | (-1.42) | (-1.54) | (-2.53) | (-2.52) |
| Ln GDP p.c. | -0.012 | -0.015 | -0.012 | -0.015 | -0.012 | -0.015 | 0.019 | 0.016 | 0.013 | 0.011 | -0.044 | -0.047 |
| | (-0.33) | (-0.40) | (-0.34) | (-0.40) | (-0.34) | (-0.40) | (0.58) | (0.48) | (0.38) | (0.30) | (-0.84) | (-0.90) |
| Ln population | 0.030 | 0.028 | 0.030 | 0.028 | 0.030 | 0.028 | 0.074*** | 0.072*** | 0.075*** | 0.073*** | 0.195 | 0.198 |
| | (1.60) | (1.48) | (1.59) | (1.47) | (1.59) | (1.47) | (4.14) | (4.00) | (4.10) | (3.98) | (-1.53) | (-1.54) |
| Ethnic fractionaliz. | 0.146 | 0.146 | 0.149 | 0.149 | 0.149 | 0.149 | 0.053 | 0.054 | 0.055 | 0.055 | | |
| | (1.32) | (1.33) | (1.36) | (1.37) | (1.36) | (1.37) | (0.47) | (0.49) | (0.49) | (0.49) | | |
| Urbanization | 0.005*** | 0.005*** | 0.005*** | 0.005*** | 0.005*** | 0.005*** | 0.004** | 0.004** | 0.004** | 0.004** | 0.004 | 0.004 |
| | (2.71) | (2.73) | (2.74) | (2.75) | (2.73) | (2.74) | (2.27) | (2.26) | (2.35) | (2.34) | (1.65) | (1.66) |
| Size of military | -0.048 | -0.049 | -0.049* | -0.050* | -0.049 | -0.050 | 0.002 | 0.000 | 0.004 | 0.003 | -0.017 | -0.018 |
| | (-1.61) | (-1.62) | (-1.65) | (-1.66) | (-1.63) | (-1.64) | (0.08) | (0.01) | (0.15) | (0.11) | (-0.90) | (-0.93) |
| Resource dependence | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.002* | 0.002* |
| | (1.12) | (1.18) | (1.19) | (1.25) | (1.20) | (1.26) | (0.53) | (0.56) | (0.25) | (0.28) | (1.74) | (1.72) |
| Ln regime duration | | 0.015 | | 0.016 | | 0.016 | | 0.013 | | 0.012 | | 0.013 |
| | | (0.79) | | (0.81) | | (0.81) | | (0.72) | | (0.63) | | (1.02) |
| Regime failures globally | | | | | -0.055 | -0.075 | -0.034 | -0.055 | | | 0.043 | 0.034 |
| | | | | | (-0.19) | (-0.26) | (-0.13) | (-0.21) | | | (0.19) | (0.15) |
| Regime failures region | | | | | 0.031 | 0.032 | 0.007 | 0.011 | | | -0.030 | -0.028 |
| | | | | | (0.23) | (0.24) | (0.07) | (0.10) | | | (-0.32) | (-0.30) |
| Time trend | -0.002 | -0.002 | -0.000 | -0.000 | -0.000 | -0.000 | 0.001 | 0.001 | | | -0.003 | -0.004 |
| | (-0.70) | (-0.77) | (-0.10) | (-0.17) | (-0.08) | (-0.14) | (0.27) | (0.22) | | | (-0.95) | (-1.10) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3248 | 3248 | 3248 | 3248 | 3247 | 3247 | 3247 | 3247 | 3120 | 3120 | 3283 | 3283 |
| Countries | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 97 | 97 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.19: First-stage IV regressions with existence of old-age pension programs as dependent variable (second-stage regressions have autocratic regime breakdown as dependent, and are reported in the paper).

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. For the instruments, R= share of the other countries in the region having pension program in given year; G= share of other countries globally having pension program in given year. Errors are clustered on country. The maximum time series extend from the 1946 to 2004.

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Old-age pensions | -0.510 | -0.579 | -0.481 | -0.549 | -0.396 | -0.459 | -2.215*** | -2.298*** | -3.180*** | -3.199*** | -0.150 | -0.159 |
| | (-1.58) | (-1.63) | (-1.52) | (-1.56) | (-1.20) | (-1.27) | (-2.98) | (-3.09) | (-15.22) | (-17.17) | (-1.55) | (-1.55) |
| Military regime | 0.611*** | 0.665*** | 0.616*** | 0.669*** | 0.632*** | 0.683*** | 0.202 | 0.254 | -0.231 | -0.194 | 0.047 | 0.066** |
| | (5.21) | (5.26) | (5.34) | (5.38) | (5.67) | (5.71) | (0.77) | (0.90) | (-0.78) | (-0.61) | (1.43) | (1.97) |
| Monarchy | -0.275 | -0.333 | -0.265 | -0.322 | -0.213 | -0.266 | -0.382 | -0.444 | -0.480** | -0.516** | 0.066** | 0.031 |
| | (-1.38) | (-1.57) | (-1.35) | (-1.54) | (-1.07) | (-1.26) | (-1.38) | (-1.56) | (-1.97) | (-2.12) | (2.07) | (0.81) |
| Personalist regime | 0.421*** | 0.451*** | 0.422*** | 0.451*** | 0.425*** | 0.454*** | 0.185 | 0.212 | -0.019 | -0.002 | 0.014 | 0.023 |
| | (4.54) | (4.48) | (4.55) | (4.49) | (4.60) | (4.51) | (1.01) | (1.07) | (-0.08) | (-0.01) | (0.59) | (0.83) |
| Other autocracy | 0.475 | 0.421 | 0.478 | 0.425 | 0.484 | 0.437 | 0.212 | 0.149 | -0.110 | -0.166 | 0.161* | 0.164** |
| | (1.37) | (1.12) | (1.38) | (1.13) | (1.41) | (1.17) | (0.65) | (0.42) | (-0.32) | (-0.48) | (1.89) | (2.01) |
| Ln GDP p.c. | -0.049 | -0.061 | -0.050 | -0.062 | -0.058 | -0.069 | -0.056 | -0.065 | 0.012 | 0.008 | -0.037* | -0.043** |
| | (-0.80) | (-0.94) | (-0.83) | (-0.97) | (-0.95) | (-1.07) | (-0.55) | (-0.60) | (0.10) | (0.07) | (-1.92) | (-2.11) |
| Ln Population | -0.041 | -0.047 | -0.042 | -0.048 | -0.037 | -0.043 | 0.131 | 0.127 | 0.221*** | 0.217*** | -0.087* | -0.079 |
| | (-1.20) | (-1.34) | (-1.24) | (-1.38) | (-1.10) | (-1.24) | (1.50) | (1.44) | (3.20) | (3.15) | (-1.80) | (-1.56) |
| Ethnic fractionaliz. | -0.043 | -0.032 | -0.045 | -0.034 | -0.057 | -0.046 | 0.249 | 0.256 | 0.229 | 0.227 | | |
| | (-0.26) | (-0.18) | (-0.27) | (-0.20) | (-0.36) | (-0.28) | (0.94) | (0.93) | (0.66) | (0.65) | | |
| Urbanization | 0.003 | 0.004 | 0.003 | 0.003 | 0.002 | 0.003 | 0.006 | 0.006 | 0.012* | 0.013* | 0.001* | 0.002* |
| | (0.87) | (0.94) | (0.84) | (0.91) | (0.60) | (0.69) | (0.87) | (0.92) | (1.91) | (1.94) | (1.81) | (1.78) |
| Size of military | -0.056 | -0.063 | -0.056 | -0.063 | -0.024 | -0.029 | 0.051 | 0.043 | 0.030 | 0.025 | -0.006 | -0.007 |
| | (-0.88) | (-0.94) | (-0.87) | (-0.94) | (-0.38) | (-0.45) | (0.69) | (0.59) | (0.33) | (0.28) | (-0.62) | (-0.71) |
| Resource dependence | -0.003 | -0.003 | -0.003 | -0.003 | -0.003 | -0.003 | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 |
| | (-0.87) | (-0.80) | (-0.88) | (-0.81) | (-0.89) | (-0.83) | (0.28) | (0.30) | (0.13) | (0.17) | (1.07) | (0.77) |
| Ln regime duration | | 0.062 | | 0.061 | | 0.058 | | 0.064 | | 0.046 | | 0.022*** |
| | | (1.42) | | (1.40) | | (1.33) | | (1.25) | | (0.73) | | (3.11) |
| Global regime failures | | | | | -1.605 | -1.706 | -1.145 | -1.216 | | | -0.069 | -0.085 |
| | | | | | (-0.88) | (-0.95) | (-0.84) | (-0.92) | | | (-0.38) | (-0.48) |
| Region regime failures | | | | | 1.750*** | 1.739*** | 1.026 | 0.992 | | | 0.148* | 0.151* |
| | | | | | (2.79) | (2.77) | (1.58) | (1.54) | | | (1.65) | (1.66) |
| Time trend | 0.002 | 0.001 | 0.002 | 0.001 | 0.002 | 0.002 | 0.017*** | 0.016*** | | | 0.004*** | 0.003** |
| | (0.53) | (0.27) | (0.49) | (0.23) | (0.66) | (0.41) | (3.58) | (3.25) | | | (3.34) | (2.35) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3247 | 3247 | 3247 | 3247 | 3246 | 3246 | 3246 | 3246 | 3172 | 3172 | 3282 | 3282 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.20: Second-stage IV regressions with autocratic regime failure as dependent variable and existence of old-age pension programs as endogenous independent. Robustness testing when lagging all independent variables 1 additional year.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having pension program that year; G=share other countries globally having pension program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maternity leave progr. | 0.097 | 0.044 | 0.402 | 0.333 | 0.324 | 0.257 | 0.728 | 0.741 | 0.502 | 0.513 | -0.201 | -0.170 |
| | (0.20) | (0.09) | (0.72) | (0.58) | (0.60) | (0.47) | (1.26) | (1.29) | (1.42) | (1.43) | (-1.35) | (-1.15) |
| Military regime | 0.732*** | 0.812*** | 0.719*** | 0.797*** | 0.726*** | 0.797*** | 0.617*** | 0.695*** | 0.664*** | 0.742*** | 0.073* | 0.099** |
| | (7.77) | (7.75) | (6.48) | (6.70) | (6.75) | (6.93) | (5.14) | (5.03) | (5.65) | (5.57) | (1.88) | (2.42) |
| Monarchy | 0.005 | -0.058 | 0.144 | 0.075 | 0.120 | 0.056 | 0.213 | 0.169 | 0.064 | 0.020 | 0.053 | 0.011 |
| | (0.02) | (-0.20) | (0.45) | (0.23) | (0.39) | (0.18) | (0.71) | (0.53) | (0.28) | (0.08) | (1.37) | (0.26) |
| Personalist regime | 0.404*** | 0.448*** | 0.384*** | 0.427*** | 0.403*** | 0.442*** | 0.350*** | 0.393*** | 0.380*** | 0.423*** | 0.033 | 0.046 |
| | (4.43) | (4.40) | (3.87) | (3.93) | (4.08) | (4.08) | (3.06) | (3.08) | (3.59) | (3.53) | (0.97) | (1.23) |
| Other autocracy | 1.388*** | 1.451*** | 1.461*** | 1.520*** | 1.390*** | 1.445*** | 1.319** | 1.400** | 1.121** | 1.215** | 0.132 | 0.146 |
| | (3.28) | (3.35) | (3.19) | (3.27) | (2.93) | (3.01) | (2.37) | (2.47) | (2.36) | (2.47) | (0.63) | (0.69) |
| Ln GDP p.c. | -0.090 | -0.099 | -0.113 | -0.121 | -0.111 | -0.117 | -0.199* | -0.210* | -0.171 | -0.180 | -0.030* | -0.038** |
| | (-1.10) | (-1.17) | (-1.21) | (-1.28) | (-1.24) | (-1.30) | (-1.74) | (-1.77) | (-1.62) | (-1.64) | (-1.90) | (-2.13) |
| Ln Population | -0.043 | -0.048 | -0.060 | -0.064 | -0.048 | -0.052 | -0.104 | -0.113* | -0.084* | -0.093* | -0.082* | -0.080 |
| | (-1.04) | (-1.11) | (-1.31) | (-1.37) | (-1.07) | (-1.12) | (-1.62) | (-1.72) | (-1.70) | (-1.76) | (-1.76) | (-1.64) |
| Ethnic fractionaliz. | -0.141 | -0.124 | -0.170 | -0.153 | -0.171 | -0.154 | -0.035 | -0.030 | 0.015 | 0.019 | | |
| | (-0.86) | (-0.73) | (-0.93) | (-0.83) | (-0.97) | (-0.86) | (-0.15) | (-0.12) | (0.07) | (0.09) | | |
| Urbanization | 0.002 | 0.002 | 0.000 | 0.001 | 0.001 | 0.001 | -0.002 | -0.002 | -0.002 | -0.002 | 0.002** | 0.002** |
| | (0.49) | (0.55) | (0.11) | (0.20) | (0.20) | (0.29) | (-0.54) | (-0.51) | (-0.38) | (-0.38) | (2.10) | (2.11) |
| Size of military | -0.129* | -0.139* | -0.116 | -0.126 | -0.095 | -0.105 | -0.073 | -0.082 | -0.092 | -0.101 | -0.023** | -0.025** |
| | (-1.73) | (-1.77) | (-1.56) | (-1.63) | (-1.28) | (-1.36) | (-0.78) | (-0.86) | (-1.06) | (-1.12) | (-2.27) | (-2.38) |
| Resource dependence | -0.002 | -0.002 | -0.002 | -0.002 | -0.002 | -0.002 | -0.001 | -0.001 | -0.001 | -0.001 | 0.000 | -0.000 |
| | (-0.47) | (-0.44) | (-0.44) | (-0.43) | (-0.51) | (-0.49) | (-0.17) | (-0.20) | (-0.33) | (-0.31) | (0.22) | (-0.08) |
| Ln regime duration | | 0.074* | | 0.069* | | 0.064 | | 0.066 | | 0.064 | | 0.027*** |
| | | (1.89) | | (1.73) | | (1.64) | | (1.51) | | (1.51) | | (3.56) |
| Global regime failures | | | | | 2.845 | 2.779 | 3.155 | 3.098 | | | 0.356 | 0.345 |
| | | | | | (1.43) | (1.40) | (1.64) | (1.62) | | | (1.58) | (1.57) |
| Region regime failures | | | | | 1.302** | 1.278* | 1.177* | 1.158* | | | 0.108 | 0.118 |
| | | | | | (1.99) | (1.95) | (1.77) | (1.76) | | | (1.14) | (1.25) |
| Time trend | -0.001 | -0.003 | 0.001 | -0.001 | 0.001 | -0.000 | 0.008 | 0.006 | | | 0.002** | 0.001 |
| | (-0.31) | (-0.67) | (0.11) | (-0.24) | (0.27) | (-0.07) | (1.63) | (1.21) | | | (2.33) | (1.16) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3175 | 3175 | 3175 | 3175 | 3174 | 3174 | 3174 | 3174 | 3050 | 3050 | 3210 | 3210 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.21: Second-stage IV regressions with autocratic regime failure as dependent variable and existence of maternity leave programs as endogenous independent.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having maternity leave program that year; G=share other countries globally having maternity leave program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Family allow. progr. | -0.374** | -0.390** | -0.338** | -0.355** | -0.339* | -0.355* | 1.257* | 1.399** | 1.081** | 1.193*** | -0.375 | -0.327 |
| | (-2.27) | (-2.21) | (-2.00) | (-1.97) | (-1.93) | (-1.92) | (1.74) | (2.25) | (2.47) | (2.88) | (-1.20) | (-1.03) |
| Military regime | 0.718*** | 0.782*** | 0.723*** | 0.787*** | 0.730*** | 0.786*** | 0.508*** | 0.531** | 0.587*** | 0.630*** | 0.083** | 0.104** |
| | (6.87) | (6.82) | (7.00) | (6.93) | (7.05) | (6.96) | (2.59) | (2.41) | (4.18) | (3.98) | (2.00) | (2.31) |
| Monarchy | -0.074 | -0.112 | -0.067 | -0.105 | -0.052 | -0.087 | -0.062 | -0.103 | -0.138 | -0.184 | 0.086 | 0.044 |
| | (-0.42) | (-0.62) | (-0.38) | (-0.59) | (-0.30) | (-0.48) | (-0.22) | (-0.32) | (-0.52) | (-0.64) | (1.49) | (0.71) |
| Personalist regime | 0.428*** | 0.461*** | 0.426*** | 0.460*** | 0.440*** | 0.470*** | 0.229 | 0.235 | 0.276** | 0.292* | 0.018 | 0.030 |
| | (4.45) | (4.39) | (4.50) | (4.44) | (4.55) | (4.45) | (1.31) | (1.24) | (2.01) | (1.95) | (0.41) | (0.62) |
| Other autocracy | 0.665** | 0.626** | 0.654** | 0.616** | 0.643** | 0.612** | 0.438 | 0.382 | 0.374 | 0.333 | -0.086 | -0.046 |
| | (2.51) | (2.13) | (2.42) | (2.06) | (2.38) | (2.06) | (1.13) | (0.96) | (1.22) | (1.02) | (-0.24) | (-0.13) |
| Ln GDP p.c. | -0.111 | -0.123 | -0.112 | -0.124 | -0.117 | -0.128 | -0.267** | -0.277** | -0.236** | -0.248** | -0.039* | -0.045** |
| | (-1.49) | (-1.59) | (-1.51) | (-1.60) | (-1.56) | (-1.63) | (-2.25) | (-2.15) | (-2.04) | (-2.00) | (-1.88) | (-2.09) |
| Ln Population | -0.059* | -0.067** | -0.059* | -0.067** | -0.052 | -0.059* | -0.106* | -0.118* | -0.098* | -0.111* | -0.110** | -0.104** |
| | (-1.85) | (-2.00) | (-1.86) | (-2.02) | (-1.62) | (-1.77) | (-1.72) | (-1.74) | (-1.78) | (-1.78) | (-2.09) | (-1.96) |
| Ethnic fractionaliz. | -0.073 | -0.063 | -0.083 | -0.073 | -0.088 | -0.078 | 0.077 | 0.090 | 0.076 | 0.089 | | |
| | (-0.41) | (-0.34) | (-0.48) | (-0.40) | (-0.51) | (-0.43) | (0.28) | (0.30) | (0.32) | (0.35) | | |
| Urbanization | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | -0.005 | -0.006 | -0.005 | -0.005 | 0.002* | 0.002* |
| | (1.19) | (1.19) | (1.19) | (1.19) | (1.19) | (1.19) | (-0.92) | (-1.05) | (-0.97) | (-1.06) | (1.83) | (1.83) |
| Size of military | -0.129* | -0.134* | -0.131* | -0.136* | -0.111 | -0.116 | -0.047 | -0.047 | -0.063 | -0.066 | -0.020 | -0.023 |
| | (-1.65) | (-1.67) | (-1.67) | (-1.68) | (-1.39) | (-1.42) | (-0.42) | (-0.41) | (-0.64) | (-0.65) | (-1.36) | (-1.51) |
| Resource dependence | -0.003 | -0.003 | -0.003 | -0.003 | -0.003 | -0.003 | 0.007 | 0.008 | 0.006 | 0.006 | 0.000 | -0.000 |
| | (-0.72) | (-0.71) | (-0.69) | (-0.68) | (-0.74) | (-0.73) | (1.29) | (1.46) | (1.23) | (1.33) | (0.29) | (-0.04) |
| Ln regime duration | | 0.062 | | 0.063 | | 0.056 | | 0.047 | | 0.053 | | 0.024** |
| | | (1.51) | | (1.52) | | (1.38) | | (0.96) | | (1.24) | | (2.46) |
| Global regime failures | | | | | 3.029 | 2.991 | 2.575 | 2.428 | | | 0.402* | 0.388* |
| | | | | | (1.52) | (1.50) | (1.33) | (1.31) | | | (1.80) | (1.77) |
| Region regime failures | | | | | 1.149* | 1.120* | 1.289** | 1.259** | | | 0.111 | 0.118 |
| | | | | | (1.69) | (1.65) | (2.05) | (2.09) | | | (1.15) | (1.23) |
| Time trend | -0.001 | -0.003 | -0.001 | -0.003 | -0.000 | -0.001 | 0.010** | 0.010* | | | 0.003** | 0.002 |
| | (-0.40) | (-0.71) | (-0.42) | (-0.74) | (-0.06) | (-0.36) | (2.09) | (1.87) | | | (2.26) | (1.53) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3235 | 3235 | 3235 | 3235 | 3234 | 3234 | 3234 | 3234 | 3112 | 3112 | 3270 | 3270 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.22: Second-stage IV regressions with autocratic regime failure as dependent variable and existence of family allowance programs as endogenous independent.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having family allowance program that year; G=share other countries globally having family allowance program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sickness benef. progr. | 0.289 | 0.276 | 0.450 | 0.438 | 0.404 | 0.393 | 2.122** | 2.109** | 1.080* | 1.111* | -0.168 | -0.130 |
| | (1.09) | (1.01) | (1.64) | (1.53) | (1.47) | (1.37) | (2.46) | (2.44) | (1.75) | (1.76) | (-1.46) | (-1.13) |
| Military regime | 0.708*** | 0.786*** | 0.690*** | 0.764*** | 0.699*** | 0.766*** | 0.410 | 0.450 | 0.622*** | 0.684*** | 0.080** | 0.102** |
| | (6.79) | (6.86) | (6.13) | (6.27) | (6.26) | (6.36) | (1.55) | (1.51) | (4.33) | (4.31) | (2.10) | (2.57) |
| Monarchy | 0.067 | 0.024 | 0.120 | 0.079 | 0.117 | 0.078 | 0.742 | 0.713 | 0.290 | 0.259 | 0.028 | -0.006 |
| | (0.35) | (0.12) | (0.61) | (0.40) | (0.60) | (0.40) | (1.51) | (1.39) | (0.91) | (0.76) | (0.90) | (-0.17) |
| Personalist regime | 0.416*** | 0.455*** | 0.418*** | 0.455*** | 0.431*** | 0.464*** | 0.524*** | 0.544*** | 0.490*** | 0.527*** | 0.014 | 0.029 |
| | (4.79) | (4.68) | (4.65) | (4.56) | (4.73) | (4.61) | (2.99) | (2.98) | (3.73) | (3.67) | (0.48) | (0.89) |
| Other autocracy | 1.350*** | 1.428*** | 1.332*** | 1.408*** | 1.282** | 1.353*** | 1.264*** | 1.304** | 1.097** | 1.180** | 0.144 | 0.158 |
| | (2.82) | (2.90) | (2.74) | (2.82) | (2.50) | (2.58) | (2.58) | (2.57) | (2.36) | (2.48) | (0.73) | (0.80) |
| Ln GDP p.c. | -0.131 | -0.143 | -0.156* | -0.168* | -0.152* | -0.162* | -0.198 | -0.202 | -0.171 | -0.178 | -0.035** | -0.042** |
| | (-1.49) | (-1.55) | (-1.70) | (-1.75) | (-1.68) | (-1.73) | (-1.28) | (-1.29) | (-1.41) | (-1.42) | (-2.19) | (-2.34) |
| Ln Population | -0.077* | -0.084* | -0.097** | -0.104** | -0.084* | -0.090* | -0.296*** | -0.298*** | -0.180** | -0.191** | -0.121*** | -0.113** |
| | (-1.70) | (-1.77) | (-2.01) | (-2.05) | (-1.73) | (-1.77) | (-2.98) | (-3.01) | (-2.13) | (-2.16) | (-2.78) | (-2.44) |
| Ethnic fractionaliz. | -0.040 | -0.033 | 0.012 | 0.020 | -0.008 | -0.001 | 0.103 | 0.107 | 0.109 | 0.116 | | |
| | (-0.21) | (-0.16) | (0.06) | (0.10) | (-0.04) | (-0.00) | (0.26) | (0.27) | (0.44) | (0.44) | | |
| Urbanization | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002** | 0.002** |
| | (0.47) | (0.50) | (0.29) | (0.33) | (0.36) | (0.38) | (0.06) | (0.08) | (0.05) | (0.05) | (2.18) | (2.14) |
| Size of military | -0.132* | -0.141* | -0.130 | -0.138 | -0.108 | -0.115 | -0.038 | -0.043 | -0.079 | -0.086 | -0.025*** | -0.028*** |
| | (-1.66) | (-1.68) | (-1.61) | (-1.64) | (-1.33) | (-1.37) | (-0.32) | (-0.36) | (-0.84) | (-0.89) | (-2.70) | (-2.69) |
| Resource dependence | -0.002 | -0.002 | -0.001 | -0.001 | -0.002 | -0.002 | -0.002 | -0.002 | -0.002 | -0.002 | 0.000 | 0.000 |
| | (-0.41) | (-0.38) | (-0.36) | (-0.33) | (-0.43) | (-0.41) | (-0.48) | (-0.49) | (-0.48) | (-0.46) | (0.70) | (0.23) |
| Ln regime duration | | 0.072* | | 0.069* | | 0.063 | | 0.031 | | 0.054 | | 0.025*** |
| | | (1.84) | | (1.75) | | (1.64) | | (0.53) | | (1.23) | | (3.74) |
| Global regime failures | | | | | 3.168 | 3.112 | 2.813* | 2.795* | | | 0.410* | 0.394* |
| | | | | | (1.60) | (1.57) | (1.79) | (1.79) | | | (1.83) | (1.80) |
| Region regime failures | | | | | 1.145* | 1.122* | 0.727 | 0.706 | | | 0.107 | 0.117 |
| | | | | | (1.71) | (1.67) | (1.29) | (1.27) | | | (1.13) | (1.24) |
| Time trend | 0.000 | -0.001 | 0.001 | 0.000 | 0.002 | 0.001 | 0.007 | 0.006 | | | 0.004*** | 0.002** |
| | (0.09) | (-0.26) | (0.34) | (0.01) | (0.55) | (0.24) | (1.07) | (0.97) | | | (3.50) | (2.10) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3189 | 3189 | 3189 | 3189 | 3188 | 3188 | 3188 | 3188 | 3067 | 3067 | 3224 | 3224 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.23: Second-stage IV regressions with autocratic regime failure as dependent variable and existence of sickness benefits programs as endogenous independent.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having sickness benefits program that year; G=share other countries globally having sickness benefits program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Unempl. benef. progr. | -0.388 | -0.378 | -0.443 | -0.457 | -0.324 | -0.336 | 3.613*** | 3.261*** | 3.206*** | 0.030 | 0.035 |
| | (-1.06) | (-0.97) | (-1.21) | (-1.15) | (-0.89) | (-0.86) | (6.95) | (3.73) | (3.42) | (0.21) | (0.22) |
| Military regime | 0.723*** | 0.777*** | 0.719*** | 0.768*** | 0.731*** | 0.778*** | -0.050 | 0.165 | 0.299 | 0.074** | 0.096** |
| | (7.20) | (6.92) | (7.07) | (6.73) | (7.47) | (7.12) | (-0.12) | (0.45) | (0.79) | (1.98) | (2.50) |
| Monarchy | -0.117 | -0.144 | -0.131 | -0.163 | -0.090 | -0.120 | 0.845** | 0.689* | 0.598 | 0.067 | 0.028 |
| | (-0.60) | (-0.73) | (-0.66) | (-0.81) | (-0.46) | (-0.61) | (2.31) | (1.78) | (1.45) | (1.38) | (0.53) |
| Personalist regime | 0.417*** | 0.444*** | 0.417*** | 0.443*** | 0.428*** | 0.452*** | -0.006 | 0.132 | 0.199 | 0.033 | 0.043 |
| | (4.55) | (4.55) | (4.49) | (4.48) | (4.66) | (4.61) | (-0.02) | (0.58) | (0.89) | (1.18) | (1.40) |
| Other autocracy | 0.748** | 0.708* | 0.781** | 0.756** | 0.697** | 0.675* | -2.254*** | -1.846* | -1.855* | 0.181 | 0.186 |
| | (2.19) | (1.87) | (2.29) | (2.01) | (1.98) | (1.74) | (-2.69) | (-1.93) | (-1.85) | (1.00) | (1.01) |
| Ln GDP p.c. | -0.063 | -0.075 | -0.057 | -0.065 | -0.073 | -0.081 | -0.253* | -0.274* | -0.293** | -0.037* | -0.045* |
| | (-0.73) | (-0.82) | (-0.66) | (-0.71) | (-0.85) | (-0.89) | (-1.67) | (-1.95) | (-2.06) | (-1.83) | (-1.93) |
| Ln Population | -0.024 | -0.030 | -0.021 | -0.025 | -0.021 | -0.025 | -0.219** | -0.226** | -0.240** | -0.111*** | -0.105** |
| | (-0.63) | (-0.73) | (-0.54) | (-0.60) | (-0.54) | (-0.61) | (-2.51) | (-2.47) | (-2.57) | (-2.88) | (-2.47) |
| Ethnic fractionaliz. | -0.202 | -0.195 | -0.210 | -0.206 | -0.198 | -0.194 | 0.362 | 0.350 | 0.357 | | |
| | (-1.11) | (-1.02) | (-1.14) | (-1.07) | (-1.10) | (-1.03) | (0.81) | (0.83) | (0.84) | | |
| Urbanization | 0.003 | 0.004 | 0.003 | 0.004 | 0.003 | 0.003 | -0.007 | -0.006 | -0.006 | 0.002** | 0.002** |
| | (1.03) | (1.02) | (1.03) | (1.02) | (1.00) | (0.99) | (-1.10) | (-1.01) | (-0.98) | (2.15) | (2.08) |
| Size of military | -0.085 | -0.090 | -0.079 | -0.081 | -0.071 | -0.074 | -0.036 | -0.101 | -0.115 | -0.029*** | -0.031*** |
| | (-0.91) | (-0.92) | (-0.85) | (-0.83) | (-0.77) | (-0.76) | (-0.24) | (-0.74) | (-0.84) | (-2.94) | (-2.74) |
| Resource dependence | -0.002 | -0.002 | -0.002 | -0.002 | -0.002 | -0.002 | 0.003 | 0.002 | 0.002 | 0.000 | -0.000 |
| | (-0.47) | (-0.46) | (-0.47) | (-0.47) | (-0.52) | (-0.52) | (0.43) | (0.29) | (0.33) | (0.30) | (-0.03) |
| Ln regime duration | | 0.051 | | 0.048 | | 0.046 | | | 0.090 | | 0.025*** |
| | | (1.20) | | (1.12) | | (1.09) | | | (1.45) | | (3.44) |
| Global regime failures | | | | | 2.988 | 2.945 | 0.268 | | | 0.400* | 0.383* |
| | | | | | (1.50) | (1.48) | (0.15) | | | (1.83) | (1.78) |
| Region regime failures | | | | | 1.149* | 1.121* | 0.413 | | | 0.135 | 0.139 |
| | | | | | (1.72) | (1.68) | (0.72) | | | (1.50) | (1.53) |
| Time trend | -0.002 | -0.003 | -0.001 | -0.002 | -0.000 | -0.001 | 0.002 | | | 0.003*** | 0.002* |
| | (-0.45) | (-0.73) | (-0.44) | (-0.69) | (-0.10) | (-0.37) | (0.24) | | | (3.66) | (1.76) |
| Year dummies | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | | |
| Country dummies | | | | | | | | | | Y | Y |
| N | 3234 | 3234 | 3234 | 3234 | 3233 | 3233 | 3233 | 3112 | 3112 | 3269 | 3269 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.24: Second-stage IV regressions with autocratic regime failure as dependent variable and existence of unemployment benefits programs as endogenous independent.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having unemployment benefits program that year; G=share other countries globally having unemployment benefits program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).NB: The model corresponding to D8 in Table 4 of the paper did not converge, and is thus not reported.

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Work injury progr. | -1.852 | -1.478 | -4.817*** | -4.638** | 1.260 | 1.169 | -0.186 | -0.060 | -0.293 | -0.209 | -0.141 | -0.121 |
| | (-0.55) | (-0.43) | (-3.42) | (-2.23) | (0.15) | (0.16) | (-0.17) | (-0.06) | (-0.35) | (-0.25) | (-1.11) | (-0.93) |
| Military regime | 0.631** | 0.748*** | 0.143 | 0.307 | 0.750*** | 0.794*** | 0.630*** | 0.712*** | 0.655*** | 0.737*** | 0.075** | 0.097** |
| | (2.30) | (3.31) | (0.29) | (0.47) | (7.00) | (4.68) | (5.46) | (5.86) | (5.43) | (5.64) | (2.02) | (2.49) |
| Monarchy | -0.102 | -0.136 | -0.199 | -0.249 | 0.028 | 0.002 | -0.047 | -0.094 | -0.112 | -0.163 | 0.085** | 0.040 |
| | (-0.51) | (-0.62) | (-0.95) | (-1.20) | (0.08) | (0.00) | (-0.22) | (-0.42) | (-0.53) | (-0.72) | (2.23) | (0.90) |
| Personalist regime | 0.378*** | 0.434*** | 0.170 | 0.253 | 0.395* | 0.421* | 0.358*** | 0.402*** | 0.378*** | 0.421*** | 0.032 | 0.042 |
| | (3.14) | (4.00) | (0.72) | (0.80) | (1.88) | (1.73) | (3.63) | (3.56) | (3.66) | (3.62) | (1.04) | (1.27) |
| Other autocracy | 0.508 | 0.446 | 0.270 | 0.221 | 0.460 | 0.440 | 0.651** | 0.631** | 0.528** | 0.508* | 0.191 | 0.195 |
| | (1.63) | (1.27) | (0.91) | (0.61) | (0.99) | (1.21) | (2.47) | (2.21) | (2.04) | (1.80) | (1.02) | (1.02) |
| Ln GDP p.c. | -0.120 | -0.135 | -0.101 | -0.126 | -0.089 | -0.099 | -0.203** | -0.219** | -0.176* | -0.190* | -0.036** | -0.044** |
| | (-1.42) | (-1.50) | (-0.80) | (-0.88) | (-0.48) | (-0.53) | (-2.20) | (-2.26) | (-1.88) | (-1.95) | (-2.03) | (-2.30) |
| Ln Population | -0.031 | -0.047 | 0.019 | 0.000 | -0.049 | -0.054 | -0.051 | -0.066 | -0.047 | -0.060 | -0.104** | -0.105** |
| | (-0.59) | (-0.97) | (0.41) | (0.00) | (-0.81) | (-1.25) | (-0.95) | (-1.18) | (-0.96) | (-1.16) | (-2.39) | (-2.33) |
| Ethnic fractionaliz. | -0.031 | -0.047 | 0.213 | 0.200 | -0.213 | -0.205 | 0.084 | 0.089 | 0.098 | 0.104 | | |
| | (-0.10) | (-0.15) | (0.79) | (0.68) | (-0.49) | (-0.51) | (0.43) | (0.42) | (0.49) | (0.49) | | |
| Urbanization | 0.006 | 0.006 | 0.010* | 0.009* | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001* | 0.002* |
| | (1.01) | (0.91) | (1.71) | (1.85) | (0.04) | (0.07) | (0.20) | (0.18) | (0.32) | (0.28) | (1.70) | (1.70) |
| Size of military | -0.095 | -0.109 | -0.008 | -0.027 | -0.097 | -0.101 | -0.059 | -0.072 | -0.065 | -0.075 | -0.026*** | -0.028*** |
| | (-0.95) | (-1.10) | (-0.10) | (-0.24) | (-1.07) | (-1.15) | (-0.60) | (-0.72) | (-0.69) | (-0.79) | (-2.75) | (-2.71) |
| Resource dependence | -0.003 | -0.003 | -0.003 | -0.003 | -0.002 | -0.002 | -0.001 | -0.001 | -0.002 | -0.002 | 0.000 | 0.000 |
| | (-0.69) | (-0.61) | (-1.00) | (-0.92) | (-0.31) | (-0.35) | (-0.25) | (-0.24) | (-0.43) | (-0.38) | (0.50) | (0.07) |
| Ln regime duration | | 0.084 | | 0.096 | | 0.041 | | 0.066 | | 0.065 | | 0.026*** |
| | | (1.56) | | (1.33) | | (0.30) | | (1.57) | | (1.54) | | (3.66) |
| Global regime failures | | | | | 3.473 | 3.421 | 3.514* | 3.494* | | | 0.404* | 0.394* |
| | | | | | (1.51) | (1.45) | (1.73) | (1.72) | | | (1.78) | (1.77) |
| Region regime failures | | | | | 1.299 | 1.297 | 1.269* | 1.243* | | | 0.163* | 0.166* |
| | | | | | (0.91) | (1.02) | (1.94) | (1.91) | | | (1.87) | (1.90) |
| Time trend | -0.001 | -0.003 | 0.002 | 0.000 | -0.001 | -0.002 | 0.005 | 0.003 | | | 0.003*** | 0.002** |
| | (-0.16) | (-0.64) | (0.30) | (0.01) | (-0.24) | (-0.52) | (1.23) | (0.78) | | | (3.69) | (2.28) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3185 | 3185 | 3185 | 3185 | 3184 | 3184 | 3184 | 3184 | 2973 | 2973 | 3220 | 3220 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.25: Second-stage IV regressions with autocratic regime failure as dependent variable and existence of work injury programs as endogenous independent.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having work injury program that year; G=share other countries globally having work injury program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).

| Model | D1 IVProbit *b/(t)* | D2 IVProbit *b/(t)* | D3 IVProbit *b/(t)* | D4 IVProbit *b/(t)* | D5 IVProbit *b/(t)* | D6 IVProbit *b/(t)* | D7 IVProbit *b/(t)* | D8 IVProbit *b/(t)* | D9 IVProbit *b/(t)* | D10 IVProbit *b/(t)* | D11 FE2SLS *b/(t)* | D12 FE2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Old-age pensions | -1.177** | -1.325** | -1.018* | -1.169* | -1.004* | -1.143* | -3.201*** | -3.241*** | -3.446*** | -3.451*** | -0.299* | -0.329* |
| | (-2.04) | (-2.06) | (-1.80) | (-1.83) | (-1.76) | (-1.79) | (-8.10) | (-9.08) | (-16.39) | (-17.31) | (-1.79) | (-1.82) |
| Maternity leave | 0.141 | 0.135 | 0.151 | 0.146 | 0.155 | 0.149 | 0.005 | 0.000 | -0.012 | -0.014 | 0.029 | 0.019 |
| | (1.04) | (0.93) | (1.12) | (1.00) | (1.15) | (1.03) | (0.02) | (0.00) | (-0.06) | (-0.07) | (0.58) | (0.35) |
| Sickness benefits | 0.159 | 0.176 | 0.125 | 0.142 | 0.118 | 0.135 | 0.502** | 0.512** | 0.521*** | 0.521*** | 0.083 | 0.099 |
| | (0.80) | (0.80) | (0.65) | (0.66) | (0.61) | (0.63) | (2.34) | (2.37) | (2.61) | (2.59) | (1.31) | (1.49) |
| Unemployment benefits | -0.102 | -0.073 | -0.093 | -0.066 | -0.085 | -0.059 | -0.265* | -0.252 | -0.263* | -0.259* | -0.018 | -0.011 |
| | (-0.64) | (-0.44) | (-0.59) | (-0.40) | (-0.54) | (-0.36) | (-1.70) | (-1.60) | (-1.92) | (-1.86) | (-0.46) | (-0.24) |
| Work injury | 0.678* | 0.783* | 0.587 | 0.691 | 0.579 | 0.675 | 1.599*** | 1.634*** | 1.658*** | 1.669*** | 0.047 | 0.058 |
| | (1.77) | (1.84) | (1.55) | (1.63) | (1.54) | (1.62) | (4.43) | (4.66) | (4.38) | (4.39) | (0.98) | (1.13) |
| Family allowances | 0.084 | 0.102 | 0.055 | 0.072 | 0.056 | 0.072 | 0.320** | 0.324** | 0.366** | 0.366** | 0.001 | 0.005 |
| | (0.64) | (0.72) | (0.44) | (0.53) | (0.44) | (0.53) | (1.97) | (2.03) | (2.28) | (2.30) | (0.02) | (0.07) |
| Military regime | 0.538*** | 0.614*** | 0.569*** | 0.646*** | 0.576*** | 0.648*** | -0.068 | -0.023 | -0.247 | -0.238 | 0.075** | 0.105*** |
| | (4.57) | (4.50) | (5.12) | (4.93) | (5.34) | (5.11) | (-0.23) | (-0.07) | (-0.81) | (-0.70) | (2.19) | (2.73) |
| Monarchy | -0.305 | -0.400* | -0.262 | -0.356* | -0.241 | -0.329 | -0.388 | -0.434* | -0.403 | -0.413 | 0.086** | 0.039 |
| | (-1.52) | (-1.84) | (-1.33) | (-1.68) | (-1.23) | (-1.55) | (-1.45) | (-1.64) | (-1.50) | (-1.55) | (2.13) | (0.75) |
| Personalist regime | 0.379*** | 0.432*** | 0.385*** | 0.437*** | 0.398*** | 0.447*** | 0.101 | 0.130 | 0.049 | 0.054 | 0.055 | 0.074* |
| | (3.88) | (3.77) | (4.04) | (3.90) | (4.14) | (3.95) | (0.53) | (0.62) | (0.23) | (0.24) | (1.55) | (1.81) |
| Other autocracy | 1.059*** | 1.106*** | 1.109*** | 1.157*** | 1.058*** | 1.107*** | -0.083 | -0.059 | -0.382 | -0.374 | 0.127 | 0.130 |
| | (2.89) | (2.94) | (3.00) | (3.06) | (2.69) | (2.77) | (-0.19) | (-0.13) | (-0.78) | (-0.73) | (0.68) | (0.67) |
| Ln GDP p.c. | -0.099 | -0.114 | -0.103 | -0.118 | -0.108 | -0.122 | -0.069 | -0.074 | -0.034 | -0.035 | -0.037* | -0.049** |
| | (-1.18) | (-1.24) | (-1.26) | (-1.32) | (-1.32) | (-1.37) | (-0.60) | (-0.62) | (-0.28) | (-0.28) | (-1.71) | (-1.96) |
| Ln Population | -0.031 | -0.041 | -0.033 | -0.043 | -0.026 | -0.035 | 0.146** | 0.139** | 0.165** | 0.163** | -0.035 | -0.020 |
| | (-0.85) | (-1.03) | (-0.95) | (-1.14) | (-0.74) | (-0.94) | (2.20) | (2.02) | (2.50) | (2.38) | (-0.47) | (-0.24) |
| Ethnic fractionaliz. | -0.037 | -0.007 | -0.056 | -0.026 | -0.064 | -0.036 | 0.229 | 0.237 | 0.236 | 0.238 | | |
| | (-0.20) | (-0.04) | (-0.30) | (-0.13) | (-0.35) | (-0.18) | (0.72) | (0.73) | (0.66) | (0.66) | | |
| Urbanization | 0.009** | 0.009** | 0.008* | 0.009* | 0.008* | 0.009* | 0.011** | 0.011** | 0.013** | 0.013** | 0.003** | 0.003** |
| | (2.03) | (2.03) | (1.90) | (1.92) | (1.85) | (1.87) | (2.03) | (2.03) | (2.32) | (2.31) | (2.18) | (2.17) |
| Size of military | -0.141* | -0.158* | -0.141* | -0.158* | -0.118 | -0.133 | 0.012 | 0.005 | 0.019 | 0.018 | -0.028** | -0.031** |
| | (-1.77) | (-1.88) | (-1.78) | (-1.89) | (-1.49) | (-1.62) | (0.14) | (0.06) | (0.21) | (0.19) | (-2.29) | (-2.18) |
| Resource dependence | 0.001 | 0.001 | 0.000 | 0.001 | 0.000 | 0.001 | 0.005 | 0.005 | 0.004 | 0.004 | 0.001 | 0.001 |
| | (0.22) | (0.30) | (0.12) | (0.21) | (0.06) | (0.15) | (1.54) | (1.55) | (1.10) | (1.10) | (1.49) | (1.25) |
| Ln regime duration | | 0.099** | | 0.098** | | 0.091* | | 0.056 | | 0.014 | | 0.032*** |
| | | (2.07) | | (2.06) | | (1.94) | | (0.88) | | (0.20) | | (3.58) |
| Global regime failures | | | | | 2.935 | 2.812 | 1.693 | 1.561 | | | 0.413* | 0.390* |
| | | | | | (1.53) | (1.49) | (1.13) | (1.09) | | | (1.81) | (1.71) |
| Region regime failures | | | | | 1.360** | 1.316** | 0.227 | 0.181 | | | 0.159 | 0.165 |
| | | | | | (2.18) | (2.14) | (0.35) | (0.29) | | | (1.62) | (1.63) |
| Time trend | 0.003 | 0.002 | 0.003 | 0.001 | 0.004 | 0.002 | 0.018*** | 0.017*** | | | 0.003** | 0.001 |
| | (0.66) | (0.33) | (0.52) | (0.20) | (0.75) | (0.44) | (4.04) | (3.61) | | | (2.14) | (0.85) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3083 | 3083 | 3083 | 3083 | 3082 | 3082 | 3082 | 3082 | 2889 | 2889 | 3118 | 3118 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.26: Investigating the effect of old-age pensions (treated as endogenous) while controlling for other major social policy programs (treated as exogenous). Second-stage IV regressions with autocratic regime failure as dependent variable and existence of old-age pension programs as endogenous independent.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. R=share other countries in region having old-age pension program that year; G=share other countries globally having old-age pension program that year. Errors are clustered on country. Maximum time series are 1946–2003 (for independent variables).

The following tables present results pertaining to an extension of the studied relationship between old-age pensions and regime survival, namely the relationship between pension systems and democratic transitions. Only about one-third of the autocratic regime breakdowns in our sample lead to a democratic transition; i.e., a regime change where the new regime replacing the old autocratic regime is a democracy (according to the operationalization by Geddes, Wright and Frantz (2014)). Given the substantive interest of democratic transitions, and the scholarly attention paid to the determinants of democratization, we wanted to test this more closely.

Theoretically, we would expect the same negative relationship between Acemoglu and Robinson's (2006) model highlight the lack of tools for credible commitment as the key explanation of democratization. According to our argument, however, pension programs allow autocrats to credibly commit to future distribution – thereby avoiding the fate of the pressured dictator of Acemoglu and Robinson, who has to allow political liberalization. Indeed, we do find evidence that pension programs in autocracies inhibit democratization. We employ similar specifications as for autocratic breakdown, modeling pension programs as endogenous using the same instrumentation strategy. Models E1–E12 in Appendix Table A.28 thus resemble D1–D12 in Table 4 of the paper except for the dependent variable; "democratization" is coded as changes from any autocracy to democracy in the following year according to Geddes et al. (2014). Table A.27 provides the corresponding first-stage results.

184 autocratic breakdowns were included in Model D1 of Table 4 in the paper, but only 68 democratization instances enter Model E1. Nonetheless, the results are strikingly similar; E1 indicates a clear negative effect of pension programs on democratization (t=-2.5). Again, we find large substantive estimated effects – to illustrate with the cases highlighted the paper, if pension programs had been removed from Mussolini Italy and Perón Argentina, for example, the predicted probabilities of democratization increase from 0.3 to 4.4 percent (Italy-1925) and 2.3 to 18.2 percent (Argentina-1952).

As with the result on pensions and autocratic regime breakdown, the democratization result is robust; the 12 t-values in Appendix Table A.28 vary between -2.0 and -16.4. The Sargan-test p-values are lower for the democratization models, but the hypothesis that the exclusion restriction holds is never rejected at 5 percent. Although not robust, we also find indications that pension programs inhibit democratization when using a BMR-based democratization measure and running models (omitting controls with short time series) on the entire sample from late-1880s–2004. These models comprise 116 countries and 103 democratization experiences, and are reported in Appendix Table A.29.

In sum, despite the relatively few democratization experiences, the overall evidence suggests that pension systems in autocracies lower the chances of democratization.

| Model | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | E10 | E11 | E12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IVProbit | IVProbit | IVProbit | IVProbit | IVprobit | IVprobit | IVProbit | IVProbit | IVprobit | IVprobit | FE 2SLS | FE 2SLS |
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| Pension share region | 0.809*** | 0.794*** | 0.820*** | 0.805*** | 0.820*** | 0.806*** | 0.246* | 0.237* | 0.149 | 0.134 | 0.478*** | 0.477*** |
| | (5.42) | (5.24) | (5.20) | (5.04) | (5.21) | (5.05) | (1.85) | (1.81) | (0.89) | (0.81) | (3.63) | (3.60) |
| Pension share globally | | | -0.174 | -0.174 | -0.178 | -0.180 | 0.381 | 0.371 | | | 0.398 | 0.391 |
| | | | (-0.47) | (-0.47) | (-0.48) | (-0.48) | (1.42) | (1.38) | | | (1.32) | (1.29) |
| Military regime | -0.127* | -0.111 | -0.125* | -0.108 | -0.125* | -0.108 | -0.106* | -0.089 | -0.077 | -0.058 | -0.108 | 0.001 |
| | (-1.84) | (-1.41) | (-1.81) | (-1.38) | (-1.81) | (-1.38) | (-1.76) | (-1.29) | (-1.14) | (-0.74) | (-0.17) | (0.01) |
| Monarchy | -0.190** | -0.200** | -0.190** | -0.201** | -0.190** | -0.200** | -0.146** | -0.157** | -0.134* | -0.147** | 0.161** | 0.140* |
| | (-2.47) | (-2.54) | (-2.48) | (-2.55) | (-2.47) | (-2.54) | (-1.98) | (-2.11) | (-1.75) | (-1.97) | (2.29) | (1.91) |
| Personalist regime | -0.019 | -0.011 | -0.020 | -0.012 | -0.020 | -0.012 | -0.030 | -0.022 | -0.029 | -0.019 | 0.002 | 0.007 |
| | (-0.37) | (-0.20) | (-0.40) | (-0.23) | (-0.40) | (-0.23) | (-0.58) | (-0.40) | (-0.54) | (-0.32) | (0.03) | (0.10) |
| Other autocracy | 0.039 | 0.024 | 0.040 | 0.024 | 0.040 | 0.024 | -0.090 | -0.102 | -0.089 | -0.101 | -0.140** | -0.138** |
| | (0.63) | (0.38) | (0.63) | (0.38) | (0.62) | (0.37) | (-1.45) | (-1.61) | (-1.37) | (-1.49) | (-2.53) | (-2.52) |
| Ln GDP p.c. | -0.012 | -0.015 | -0.012 | -0.015 | -0.012 | -0.015 | 0.019 | 0.016 | 0.007 | 0.005 | -0.044 | -0.047 |
| | (-0.33) | (-0.40) | (-0.34) | (-0.40) | (-0.33) | (-0.40) | (0.56) | (0.46) | (0.22) | (0.14) | (-0.84) | (-0.91) |
| Ln population | 0.030 | 0.028 | 0.030 | 0.028 | 0.030 | 0.028 | 0.074*** | 0.072*** | 0.069*** | 0.066*** | 0.194 | 0.198 |
| | (1.60) | (1.48) | (1.60) | (1.47) | (1.60) | (1.47) | (4.15) | (4.00) | (3.85) | (3.71) | (1.51) | (1.52) |
| Ethnic fractionaliz. | 0.146 | 0.147 | 0.149 | 0.149 | 0.149 | 0.149 | 0.053 | 0.055 | 0.126 | 0.128 | | |
| | (1.32) | (1.33) | (1.35) | (1.36) | (1.35) | (1.36) | (0.48) | (0.49) | (1.09) | (1.11) | | |
| Urbanization | 0.005*** | 0.005*** | 0.005*** | 0.005*** | 0.005*** | 0.005*** | 0.004** | 0.004** | 0.005*** | 0.005*** | 0.004 | 0.004* |
| | (2.72) | (2.73) | (2.74) | (2.75) | (2.74) | (2.75) | (2.27) | (2.27) | (2.77) | (2.75) | (1.66) | (1.67) |
| Size military | -0.048 | -0.049 | -0.049 | -0.050* | -0.049 | -0.049 | 0.003 | 0.002 | 0.003 | 0.003 | -0.017 | -0.018 |
| | (-1.61) | (-1.62) | (-1.64) | (-1.65) | (-1.61) | (-1.63) | (0.13) | (0.06) | (0.15) | (0.11) | (-0.91) | (-0.94) |
| Resource dependence | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | -0.000 | -0.000 | 0.002* | 0.002* |
| | (1.12) | (1.18) | (1.17) | (1.23) | (1.18) | (1.23) | (0.51) | (0.53) | (-0.44) | (-0.37) | (1.74) | (1.72) |
| Ln regime duration | | 0.015 | | 0.016 | | 0.016 | | 0.014 | | 0.015 | | 0.013 |
| | | (0.79) | | (0.81) | | (0.81) | | (0.73) | | (0.75) | | (1.02) |
| Global regime failures | | | | | -0.052 | -0.071 | -0.020 | -0.039 | | | 0.043 | 0.034 |
| | | | | | (-0.18) | (-0.24) | (-0.08) | (-0.15) | | | (0.18) | (0.14) |
| Regional regime failures | | | | | 0.037 | 0.039 | 0.016 | 0.020 | | -0.030 | -0.028 | |
| | | | | | (0.28) | (0.29) | (0.14) | (0.18) | | | (-0.25) | (-0.23) |
| Time trend | -0.002 | -0.002 | -0.000 | -0.001 | -0.000 | -0.001 | 0.000 | 0.000 | | | -0.003 | -0.004 |
| | (-0.70) | (-0.77) | (-0.18) | (-0.26) | (-0.17) | (-0.24) | (0.10) | (0.04) | | | (-0.94) | (-1.09) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3247 | 3247 | 3247 | 3247 | 3246 | 3246 | 3246 | 3246 | 2091 | 2091 | 3282 | 3282 |
| Countries | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 97 | 97 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.27: First-stage IV regressions with existence of old-age pension programs as dependent variable (second-stage regressions have democratization as dependent, and are reported below).

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. For the instruments, R= share of the other countries in the region having pension program in given year; G= share of other countries globally having pension program in given year. Errors are clustered on country. The maximum time series extend from the 1946 to 2004.

| Model | E1 IVProbit *b/(t)* | E2 IVProbit *b/(t)* | E3 IVProbit *b/(t)* | E4 IVProbit *b/(t)* | E5 IVprobit *b/(t)* | E6 IVprobit *b/(t)* | E7 IVProbit *b/(t)* | E8 IVProbit *b/(t)* | E9 IVprobit *b/(t)* | E10 IVprobit *b/(t)* | E11 FE 2SLS *b/(t)* | E12 FE 2SLS *b/(t)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Old-age pensions | -1.077** | -1.193** | -1.008** | -1.122** | -0.989** | -1.099** | -2.984*** | -3.002*** | -3.200*** | -3.229*** | -0.200*** | -0.202*** |
| | (-2.49) | (-2.51) | (-2.05) | (-2.10) | (-1.99) | (-2.05) | (-14.23) | (-14.60) | (-14.68) | (-16.42) | (-2.77) | (-2.74) |
| Military regime | 0.695*** | 0.801*** | 0.710*** | 0.816*** | 0.726*** | 0.824*** | 0.026 | 0.106 | -0.003 | 0.053 | 0.058*** | 0.063*** |
| | (5.02) | (4.66) | (5.00) | (4.65) | (5.11) | (4.74) | (0.11) | (0.39) | (-0.01) | (0.13) | (2.63) | (2.68) |
| Monarchy | -0.664** | -0.762** | -0.643** | -0.738** | -0.623** | -0.714** | -0.586** | -0.644** | -0.521** | -0.573** | 0.042** | 0.033 |
| | (-2.19) | (-2.42) | (-2.03) | (-2.25) | (-2.02) | (-2.24) | (-2.22) | (-2.42) | (-2.12) | (-2.33) | (2.02) | (1.57) |
| Personalist regime | 0.230 | 0.309** | 0.231 | 0.308** | 0.255* | 0.327** | -0.008 | 0.039 | -0.037 | 0.005 | -0.000 | 0.002 |
| | (1.59) | (2.04) | (1.60) | (2.04) | (1.76) | (2.15) | (-0.05) | (0.20) | (-0.19) | (0.02) | (-0.03) | (0.09) |
| Other autocracy | 0.715** | 0.596* | 0.725** | 0.610* | 0.725** | 0.618* | 0.044 | -0.018 | -0.083 | -0.161 | 0.138 | 0.139 |
| | (2.53) | (1.84) | (2.54) | (1.87) | (2.48) | (1.87) | (0.17) | (-0.07) | (-0.24) | (-0.47) | (0.68) | (0.68) |
| Ln GDP p.c. | 0.022 | 0.005 | 0.020 | 0.003 | 0.018 | 0.003 | 0.041 | 0.025 | 0.015 | 0.003 | -0.011 | -0.013 |
| | (0.22) | (0.04) | (0.20) | (0.03) | (0.18) | (0.03) | (0.37) | (0.22) | (0.13) | (0.03) | (-0.77) | (-0.86) |
| Ln Population | 0.028 | 0.016 | 0.027 | 0.014 | 0.036 | 0.025 | 0.236*** | 0.224*** | 0.230*** | 0.219*** | 0.008 | 0.010 |
| | (0.74) | (0.41) | (0.72) | (0.38) | (0.95) | (0.64) | (4.27) | (4.00) | (4.13) | (3.89) | (0.23) | (0.27) |
| Ethnic fractionaliz. | -0.433** | -0.420* | -0.441** | -0.429* | -0.454** | -0.440** | -0.013 | 0.004 | 0.309 | 0.335 | | |
| | (-1.97) | (-1.84) | (-2.04) | (-1.91) | (-2.14) | (-2.01) | (-0.04) | (0.01) | (0.78) | (0.86) | | |
| Urbanization | 0.010** | 0.011** | 0.010* | 0.010** | 0.010* | 0.010* | 0.013** | 0.013** | 0.016*** | 0.016*** | 0.001 | 0.001 |
| | (2.08) | (2.12) | (1.96) | (1.99) | (1.90) | (1.95) | (2.28) | (2.28) | (2.90) | (2.88) | (1.57) | (1.57) |
| Size of military | -0.165 | -0.186 | -0.165 | -0.185 | -0.140 | -0.160 | 0.022 | 0.010 | 0.009 | 0.003 | -0.013** | -0.013** |
| | (-1.16) | (-1.28) | (-1.15) | (-1.26) | (-0.96) | (-1.07) | (0.25) | (0.11) | (0.12) | (0.03) | (-2.35) | (-2.33) |
| Resource dependence | -0.001 | -0.000 | -0.001 | -0.001 | -0.001 | -0.001 | 0.002 | 0.002 | -0.001 | -0.001 | 0.001* | 0.001* |
| | (-0.10) | (-0.05) | (-0.13) | (-0.08) | (-0.21) | (-0.16) | (0.44) | (0.45) | (-0.27) | (-0.22) | (1.72) | (1.70) |
| Ln regime duration | | 0.120* | | 0.118 | | 0.111 | | 0.078 | | 0.073 | | 0.006 |
| | | (1.68) | | (1.64) | | (1.58) | | (1.24) | | (0.97) | | (1.07) |
| Global regime failures | | | | | 3.559 | 3.439 | 0.970 | 0.857 | | | 0.162 | 0.158 |
| | | | | | (1.31) | (1.27) | (0.64) | (0.58) | | | (1.05) | (1.02) |
| Region regime failures | | | | | 1.035 | 0.978 | 0.425 | 0.391 | | | 0.052 | 0.053 |
| | | | | | (1.21) | (1.16) | (0.75) | (0.71) | | | (0.68) | (0.69) |
| Time trend | 0.011** | 0.009* | 0.011** | 0.009* | 0.012** | 0.010* | 0.021*** | 0.019*** | | | 0.002*** | 0.002** |
| | (2.15) | (1.71) | (2.10) | (1.69) | (2.27) | (1.89) | (3.72) | (3.28) | | | (2.92) | (2.57) |
| Year dummies | | | | | | | | | Y | Y | | |
| Region dummies | | | | | | | Y | Y | Y | Y | | |
| Country dummies | | | | | | | | | | | Y | Y |
| N | 3247 | 3247 | 3247 | 3247 | 3246 | 3246 | 3246 | 3246 | 2091 | 2091 | 3282 | 3282 |
| Countries | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 97 | 97 |
| Instruments | R | R | R+G | R+G | R+G | R+G | R+G | R+G | R | R | R+G | R+G |

Table A.28: Second-stage IV regressions with democratization as dependent variable and existence of old-age pension programs as endogenous independent variable.

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. For the instruments, R= share of the other countries in the region having pension prgroam in given year; G= share of other countries globally having pension program in given year. The first-stage regressions for these models are reported in Table A.27. Errors are clustered on country. The maximum time series extend from the 1946 to 2004.

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* | *b/(t)* |
| **Second-stage model** | | | | | |
| Pension program | 0.270 | 0.288 | -0.971 | -1.038* | -2.127** |
| | (0.80) | (0.85) | (-1.61) | (-1.70) | (-2.30) |
| Ln GDP p.c. | 0.133 | 0.133 | -0.010 | -0.009 | 0.033 |
| | (1.64) | (1.64) | (-0.12) | (-0.11) | (0.39) |
| Ln population | 0.061* | 0.060 | 0.104** | 0.107** | 0.157*** |
| | (1.65) | (1.64) | (2.01) | (2.08) | (2.67) |
| Ethnic fractionaliz. | -0.189 | -0.188 | -0.020 | -0.022 | 0.037 |
| | (-0.88) | (-0.88) | (-0.08) | (-0.08) | (0.13) |
| Urbanization | 0.002 | 0.002 | 0.007 | 0.007 | 0.011* |
| | (0.48) | (0.46) | (1.47) | (1.54) | (1.84) |
| Size military | -0.125 | -0.125 | -0.063 | -0.060 | -0.080 |
| | (-1.22) | (-1.22) | (-0.52) | (-0.50) | (-0.72) |
| Resource dependence | -0.016 | -0.016 | -0.006 | -0.006 | -0.007 |
| | (-1.46) | (-1.46) | (-0.67) | (-0.66) | (-0.87) |
| Time trend | 0.002 | 0.002 | 0.019*** | 0.020*** | |
| | (0.86) | (0.82) | (4.04) | (4.11) | |
| Region dummies | | | Y | Y | Y |
| Year dummies | | | | | Y |
| **First-stage model** | | | | | |
| Regional share pensions | 0.815*** | 0.826*** | 0.579*** | 0.507*** | 0.255* |
| | (8.43) | (6.80) | (6.14) | (4.20) | (1.93) |
| Global share pensions | | -0.078 | | 0.323 | |
| | | (-0.31) | | (1.44) | |
| Ln GDP p.c. | -0.004 | -0.004 | 0.001 | -0.001 | 0.014 |
| | (-0.15) | (-0.17) | (0.05) | (-0.06) | (0.65) |
| Ln population | 0.017* | 0.017* | 0.044*** | 0.043*** | 0.049*** |
| | (1.71) | (1.72) | (3.67) | (3.64) | (3.67) |
| Ethnic fractionaliz. | 0.062 | 0.065 | -0.022 | -0.021 | 0.004 |
| | (0.79) | (0.81) | (-0.25) | (-0.24) | (0.04) |
| Urbanization | 0.004*** | 0.004*** | 0.004*** | 0.004*** | 0.004*** |
| | (2.91) | (2.92) | (3.61) | (3.64) | (2.99) |
| Size military | -0.024 | -0.024 | -0.004 | -0.005 | -0.003 |
| | (-0.99) | (-0.99) | (-0.18) | (-0.22) | (-0.12) |
| Resource dependence | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 |
| | (0.65) | (0.67) | (0.65) | (0.57) | (0.15) |
| Time trend | 0.000 | 0.001 | 0.002** | -0.000 | |
| | (0.14) | (0.54) | (2.33) | (-0.08) | |
| Region dummies | | | Y | Y | Y |
| Year dummies | | | | | Y |
| N | 5535 | 5535 | 5535 | 5535 | 3061 |
| Countries | 116 | 116 | 116 | 116 | 116 |
| Instruments | R | R+G | R | R+G | R |

Table A.29: IV probit regressions with existence of old-age pension programs as dependent variable in first-stage and democratization as dependent variable in second-stage regressions. Robustness tests run on long-time series sample using democratization variable based on BMR

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The maximum time series extend from the late 1880s to 2004. Errors are clustered on country. Constants and year dummies are omitted from the table. The instrumental variables are the shares of other countries in the region (R)/globally (G) that have in place an old-age pension system. The model including region and year dummies and both instruments did not converge.

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