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**Are political representatives more risk-loving than the electorate? Evidence from
German Federal and State Parliaments**

Supplementary Information APPENDIX

Sample

Data on politicians' risk attitudes were collected using postal surveys of members of the German Federal Parliament (*Deutscher Bundestag*) and four German State Parliaments (*Landtage*). Selection of four out of the 16 German State Parliaments was guided by the rationale of maximizing variance regarding local and regional specificities. Therefore, we included one State Parliament (Berlin) out of three so called "city states," one Parliament from southern (Baden-Württemberg), one from western (Lower Saxony), and one from eastern Germany (Brandenburg). Members of the highest legislative chamber in Germany, the *Bundestag*, and the highest legislative chambers of the federal states, the *Landtage*, hold significant political power. In addition to being responsible for the legislative process, they elect the German Chancellor and the Prime Ministers of the federal states, respectively. The members of the *Bundestag* and the four *Landtage* qualify as our target sample for two main reasons. First, they wield political power in a way that affects the entire German society (e.g., taxation) or the citizens in the federal states (e.g., educational matters). Second, as professional politicians, they hold an occupation that is characterized by various risks and involves regularly making risky decisions in an uncertain environment. The main challenge in surveying members of the *Bundestag* and the *Landtage* (e.g., instead of political representatives at the community level) consisted of a potentially low response rate. Members of the *Bundestag* and the *Landtage* are part of the political elite in Germany, with little time for many duties. As we anticipated that their willingness to participate in a survey would be limited, participation was incentivized with an announced donation of five Euros to a German non-profit organization supporting children suffering from cancer ("Deutsche Kinderkrebsstiftung") for each returned questionnaire.

We collected data in two waves: The survey was sent to member of the *Bundestag* in December 2011 and to the *Landtage* in July 2012. To increase response rates, we first

informed participants via email about our survey. The email to the *Bundestag* was sent on December 13, 2011, and to the *Landtage* on July 9, 2012. Two days later, the postal survey arrived. It was accompanied by a cover letter in which we not only explained the research, but we guaranteed total anonymity. To facilitate the questionnaire's return, we included a stamped and addressed envelope. Return rates were exceptionally high compared to existing surveys of German members of parliament (28 % in the *Bundestag*, 24 % in the *Landtage*). Data on risk attitudes of the general population were taken from the SOEP (see Table S1 for a detailed sample description). Only those SOEP respondents with no missing responses for the relevant variables were included in the analysis.

Table S1. Sample

| | SOEP 2009 | 2012 | Politicians <i>Bundestag</i> | <i>Landtage</i> |
|---------------|------------------------------------|--------|---------------------------------|-----------------|
| | Total | | | |
| N | 20,637 | 20,806 | 175 | 123 |
| Response rate | * | * | 28 % | 24 % |
| Men | 47.71 | 47.06 | 69.14 | 69.11 |
| Women | 52.29 | 52.94 | 30.86 | 30.89 |
| Age | 49.89 | 51.74 | 52.64 | 49.50 |
| ISCED 0-2 | 14.02 | 13.20 | 1.72 | 0.82 |
| ISCED 3-4 | 55.99 | 56.20 | 4.64 | 3.28 |
| ISCED 5-6 | 29.99 | 30.60 | 93.68 | 95.90 |
| | SOEP (only politically interested) | | | |
| N | 1342 | 1245 | | |
| Men | 69.97 | 69.24 | | |
| Women | 30.03 | 30.76 | | |
| Age | 57.79 | 57.95 | | |
| ISCED 0-2 | 5.56 | 6.71 | | |
| ISCED 3-4 | 43.04 | 40.15 | | |
| ISCED 5-6 | 51.39 | 53.15 | | |

*Response rates of an ongoing panel study are not comparable to the response rate of a new survey.

Measures

General risk attitudes and in the domains of car driving, financial matters, sports and leisure, career, health behavior, as well as faith in other people were assessed using the following questions: “How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? Please tick a box on the scale, where the value 0 means: ‘not at all willing to take risks’ and the value 10 means ‘very willing to take risks.’”

The hypothetical choice task as the second measure of risk attitudes used the following question:

Please consider what you would do in the following situation: Imagine that you had won 100,000 euros in the lottery. Immediately after receiving your winnings you receive the following offer: You have the chance to double your money. But it is equally possible that you will lose half of amount invested. You can participate by staking all or part of your 100,000 euros on the lottery, or choose not to participate at all. What portion of your lottery winnings would you be prepared to stake on this financially risky yet potentially lucrative lottery investment?

Answers were coded in six categories ranging from 100,000 Euros to no investment at all.

Education was measured with three ISCED categories, ranging from low (ISCED 0-2), middle (3-4) to high (5-6).

Regarding the differentiation of the SOEP respondents in the matching analyses, interest in politics and party preference were used as criteria. Political interest was assessed using a scale that ranges from 1 (very strongly) to 4 (not at all). Party preference was assessed in a dichotomous yes/no format. Only respondents who were very strongly interested in politics and had a clear party preference were included in the second analysis.

Results

Matching Procedure

Table S2 shows the sample distribution before and after matching. In the first matching analysis, politicians were matched with the total sample of SOEP respondents, while the second was based only on SOEP respondents who declared an interest in politics.

Table S2. Differences between matched and unmatched respondents

| Variable | | 2009 | | 2012 | | |
|-----------------------------|---|-------------|-------|-------------|-------|-----|
| | | Politicians | SOEP | Politicians | SOEP | |
| All SOEP respondents | | | | | | |
| Observations | Unmatched | 5 | 20499 | 5 | 20513 | |
| | Matched | 293 | 293 | 293 | 293 | |
| Gender in % | Unmatched | | | | | |
| | <i>Men</i> | 100.00 | 47.39 | 100.00 | 46.75 | |
| | <i>Women</i> | 0.00 | 52.61 | 0.00 | 53.25 | |
| | Matched | | | | | |
| | <i>Men</i> | 68.60 | 68.60 | 68.60 | 68.60 | |
| | <i>Women</i> | 31.40 | 31.40 | 31.40 | 31.40 | |
| Age in years | Unmatched | No data | 48.87 | No data | 51.75 | |
| | Matched | 51.37 | 51.32 | 51.37 | 51.20 | |
| Education in % | Unmatched | | | | | |
| | <i>ISCED 0-2</i> | 0 | 14.21 | 0 | 13.37 | |
| | <i>ISCED 3-4</i> | 0 | 56.77 | 0 | 56.98 | |
| | <i>ISCED 5-6</i> | 100.00 | 29.01 | 100.00 | 29.65 | |
| | Matched | | | | | |
| | <i>ISCED 0-2</i> | 1.37 | 1.37 | 1.37 | 1.37 | |
| | <i>ISCED 3-4</i> | 4.12 | 4.12 | 4.12 | 4.12 | |
| | <i>ISCED 5-6</i> | 94.50 | 94.50 | 94.50 | 94.50 | |
| | SOEP respondents with political interest | | | | | |
| | Observations | Unmatched | 5 | 1049 | 7 | 954 |
| Matched | | 293 | 293 | 291 | 291 | |
| Gender in % | Unmatched | | | | | |
| | <i>Men</i> | 100.00 | 70.51 | 71.43 | 69.29 | |
| | <i>Women</i> | 0.00 | 29.49 | 28.57 | 30.71 | |
| | Matched | | | | | |
| | <i>Men</i> | 68.60 | 68.60 | 69.07 | 69.07 | |
| | <i>Women</i> | 31.40 | 31.40 | 30.93 | 30.93 | |
| Age | Unmatched | No data | 59.53 | 44.5 | 59.82 | |
| | Matched | 51.37 | 51.44 | 51.41 | 51.81 | |
| Education in % | Unmatched | | | | | |
| | <i>ISCED 0-2</i> | 0 | 6.83 | 14.29 | 8.49 | |
| | <i>ISCED 3-4</i> | 0 | 54.37 | 0 | 51.47 | |
| | <i>ISCED 5-6</i> | 100.00 | 38.79 | 85.71 | 40.04 | |
| | Matched | | | | | |
| | <i>ISCED 0-2</i> | 1.37 | 1.37 | 1.04 | 1.04 | |
| | <i>ISCED 3-4</i> | 4.12 | 4.12 | 4.15 | 4.15 | |
| | <i>ISCED 5-6</i> | 94.50 | 94.50 | 94.81 | 94.81 | |

Table S3. Linear Regression of being a Politician on the Risk Attitudes in the Matched Samples

| | General | Driving | Financial | Leisure, sports | Career | Health | Faith in others |
|---|---------|---------|-----------|-----------------|---------|---------|-----------------|
| All SOEP | | | | | | | |
| Politician | 1.08*** | 0.79*** | 0.97*** | 1.53*** | 3.00*** | 1.43*** | 1.89*** |
| N | 584 | 584 | 582 | 585 | 585 | 581 | 579 |
| R ² | 0.07 | 0.02 | 0.05 | 0.10 | 0.27 | 0.08 | 0.16 |
| Pol. Interest SOEP | | | | | | | |
| Politician | 1.01*** | 0.76 | 0.65*** | 1.51*** | 2.97*** | 1.64*** | 1.46*** |
| N | 580 | 584 | 582 | 585 | 585 | 581 | 579 |
| R ² | 0.06 | 0.02 | 0.02 | 0.09 | 0.26 | 0.11 | 0.09 |
| Levels of Significance: ***p<0.01, **p<0.05, *p<0.1 | | | | | | | |

Robustness checks

Even if political representatives in general were as risk-loving as the average population and if only those with an above-average risk propensity responded to the survey, the remaining 445 politicians who did not respond would have to be extremely risk-averse. This is a highly implausible result. First, the assumption of non-bias is supported by the distributions of politicians' socio-demographic indicators. Second, the assumption is backed by the following calculation. If all politicians were, on average, as risk-loving as the general population (=4.76), the sum of all politicians' risk propensities would be $620 \times 4.76 = 2,951.2$. As the weighted risk for 175 members of parliament is 1113 (175×6.36), according to the survey, a weight of 1838.24 remains to be distributed among the 445 politicians who did not respond to the survey, amounting to an average risk appetite of 4.13 ($1838.24 / 445$).

Table S4 shows the average general risk attitude from 2008 to 2012. In 2009, the last available year in which risk attitudes including all risk domains were assessed, the general risk attitude was comparably low. One reason could be the peak of the financial and economic crisis that affected Europe in 2009.

Table S4. Risk attitudes from 2008 to 2012 in SOEP

| Year | Average General Risk Attitude |
|-------------|--------------------------------------|
| 2008 | 4.40 |
| 2009 | 3.74 |
| 2010 | 4.23 |
| 2011 | 4.54 |
| 2012 | 4.76 |

Table S5. Principal-Component Analysis

Shown are results from principal component analysis based on 190 politicians.

| | Comp 1 | Comp 2 | Comp 3 | Comp 4 | Comp 5 | Comp 6 | Comp 7 | Comp 8 | |
|--------------------|--------|--------|--------|--------|--------|---------|--------|--------|--|
| Eigenvalue | 3.03 | 1.14 | 1.00 | 0.77 | 0.70 | 0.55 | 0.43 | 0.37 | |
| Proportion | 0.38 | 0.14 | 0.12 | 0.10 | 0.09 | 0.07 | 0.05 | 0.05 | |
| General | 0.40 | 0.32 | -0.19 | 0.17 | -0.40 | -0.2460 | -0.45 | 0.49 | |
| Driving | 0.37 | -0.53 | 0.21 | -0.01 | 0.03 | 0.09 | -0.62 | -0.37 | |
| Financial | 0.34 | -0.26 | -0.07 | 0.79 | -0.03 | 0.15 | 0.40 | 0.00 | |
| Leisure, sports | 0.39 | -0.22 | 0.03 | -0.22 | 0.51 | -0.60 | 0.23 | 0.25 | |
| Career | 0.42 | 0.30 | -0.12 | -0.21 | -0.33 | -0.22 | 0.28 | -0.65 | |
| Health | 0.40 | -0.15 | 0.08 | -0.47 | -.19 | 0.59 | 0.26 | .034 | |
| Faith in others | 0.29 | 0.55 | -0.05 | 0.09 | 0.64 | 0.38 | -0.17 | -0.10 | |
| Poli. Decision | 0.49 | 0.27 | 0.19 | 0.12 | -0.10 | -0.09 | 0.08 | 0.05 | |