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Native-Migrant Differences in Risk Attitudes*

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Abstract

This paper questions the perceived wisdom that migrants are more risk-loving than the native population. We employ a new large German survey of individual risk measures to find that first-generation migrants have lower risk attitudes than natives which only equalize in the second generation.

JEL classification: D1; D81; F22; J15; J16; J31; J62; J82
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1. Introduction

In this paper we investigate the widely-accepted claim of low risk aversion among foreign national migrants using unique individual German survey data on a number of measures on risk attitudes comparing immigrants of the first and second generation with those attitudes of the natives. We consider natives to be the western Germans, while those Germans living in eastern Germany are treated as a potentially separate ethnicity. Eastern Germans "immigrated" into Germany through unification in 1990. The expected finding from the public debate and previous literature is that females and eastern Germans are more risk averse than men and western Germans, while migrants have a higher willingness to take risks than natives. Our empirical study shows that most of these expectations are not supported by our data. Section 2 explains the research issue and the risk measures used. Section 3 outlines the empirical findings. Section 4 summarizes the results and puts them into context.

2. Research Issue and Data

Migrants are typically considered to be more risk-loving, mobile, talented and entrepreneurial than natives (Chiswick, 1978; Zimmermann, 1995; Dohmen et al., 2005; Constant and Zimmermann, 2006). For instance, Todaro (1980, p. XX) writes: "Migrants typically do not represent a random sample of the overall population. On the contrary, they tend to be disproportionately young, better educated, less risk-averse, and more achievement oriented and to have better personal contacts in destination areas than the general population in the region of out-migration." And theoretical models like those in Heitmueller (2005, p. 93) predict that "unsurprisingly, ... risk averse individuals are less likely to engage in migration." If the willingness to take up risks is negatively correlated with skills (see Hartog et al., 2002), then the self-selection models of migration (see Borjas, 1987; Chiswick, 1978) will also suggest a differentiated distribution of migrants where the high-skilled are less risk-adverse and the low-skilled are less risk-loving. Similar findings were derived for sex differences and cognitive measures: "Being smart makes women patient and makes men take more risks" (Frederick, 2005,

p. 38). Taking this for granted, female migrants should be less risk-taking than male foreign nationals.

Our analysis is based on a sample of roughly 21,000 individuals from the 2004 wave of the German Socioeconomic Panel (GSOEP), which is designed to be representative of the German population. While the survey has been conducted since 1984, it is only in 2004 where individuals are asked for the first time about their "willingness to take risks, in general". The risk question is structured around an 11-point scale from 0-10 with 10 meaning the highest willingness to take risks. Additionally, there are six more questions which use the same scale as the general risk question, but ask about the willingness to take risks in specific contexts: driving, financial portfolio, sports and leisure, career, health, and trusting strangers. Dohmen et al. (2005) have first analyzed the risk questions.

Germany today encompasses a number of distinct different ethnicities, including western and eastern Germans and foreign nationals. Still, the largest part of foreign nationals are from the 'guestworker' generation, who either moved to Germany for blue-collar jobs from the early 1960s on, or are second generation immigrants still carrying a foreign passport. Only few immigrants have taken the German passport. Ethnic Germans are the exception; they typically disappear in the German statistics. While 'guestworkers' typically came from the south of Europe, since the early 1970s more and more migrants have been originating from eastern Europe and outside Europe. While after unification some western Germans moved to the east, and a number of eastern Germans migrated to the west, there are still large differences between both parts of Germany. To keep the analysis simple, we only deal here with three distinct ethnic groups: (i) western Germans, the natives, (ii) eastern Germans immigrating through unification in 1990, and (iii) foreign nationals of the first or second generation living in the country.

The covariates we use to explain the willingness to risk taking in comparison to the natives include the age of the respondent, years of education, body height measured in centimeters, a dummy for being female, a dummy for married individuals, a dummy for kids less than 16 years old being present in the household, a dummy for living in eastern Germany, and

the total net household income in 10,000s Euros. Ethnicity is controlled for by including a dummy which is equal to one for those who have a foreign nationality, and the interaction of foreign nationality with the dummy of being born abroad. We expect that risk taking decreases with age, when female, married or with small kids or when living in eastern Germany, and increases with body height, years of education, household income and migrant status.

3. Empirical Results

We have estimated the full model for all indicators of risk attitudes (Table 1) and for males and females separately (Table 2). While Table 1 contains all estimated parameters, Table 2 concentrates only on the results involving foreign nationality. Missing values lead to different sample sizes in the various estimates. We report OLS estimates since the results are behaviorally robust in comparison with more advanced techniques like the ordinal probit model but are easier to present. The full sample exhibits strong and positive effects of years of education and household net income on all types of risk attitudes, and females and married individuals show consistently negative and significant effects. Young families are less risk averse towards driving, financial portfolio, sports and leisure, career and health, but they are no different from the western German reference group without young kids with respect to the general risk attitude and to trusting strangers. Body height predicts a larger willingness to take risks, but not with trusting other people. Age does not change the perception of risk about health. Older people are less willing to trust strangers, take risks in sports and leisure and risks in general but their willingness to take risks rises with respect to driving, financial portfolio and career issues.

In the German public debate, eastern Germans are often considered to be risk averse and less market oriented. This is, however, not supported by the data. Individuals living in eastern Germany exhibit a higher preference for risks in general, and they are more willing to take risks with respect to driving, sports and leisure, career paths and health than their western counterparts. They are no different with respect to financial issues, but are much less willing to

trust strangers than those in the western part of Germany. The latter finding can be seen as a left-over of socialism.

How different are migrants and their children from the natives? Are risk preferences stable or do they adjust across generations? How speedy is the intergenerational mobility of risk attitudes? The first generation is measured as foreign nationality born abroad. Table 1 shows that their general risk attitude is substantially smaller than that of the western natives. They are also more concerned about their financial portfolio, sports and leisure and career issues, and they are no different from natives in their attitudes with respect to driving, health and trusting strangers. No category points into the direction that migrants are more willing to take risks than the native population. There are a few potential explanations for this surprising finding: (i) Germany is known to have selected lower quality migrants, (ii) the "guestworker" generation was chosen according to labor market needs, and hence for these migrants there was no premium to risk in moving, and (iii) the more risk loving people have likely returned home already or moved on to other countries. What is also true, however, is that once born in Germany, foreign nationals are undistinguishable from western Germans with respect to risk attitudes: all parameter estimates are not statistically significantly different from zero.

Are there significant differences between male and female foreign nationals? Table 3 provides the relevant estimates for two separate set of regressions for both genders. The general attitudes towards risk deliver very similar findings for both male and female foreign nationals: they are less risk-loving when born abroad and not different from western natives when born in the country. The same is true for their financial portfolio. Risk attitudes with respect to health behave crazy: when female foreign nationals are born abroad they have attitudes which are strongly smaller than those for German females. The reverse is true for foreign born men in comparison to native men. In the second generation, the relationship switches: now foreign women are more prone to take health risks and males are less prone, leaving the net effect in the full sample to be insignificant. Other than that the strongly smaller willingness of foreign-born females to take risks dominates the results. The effects are much stronger than for foreign-born

males explaining the strong overall findings in the full sample. It is the strong adjustment of foreign national females in the second generation that explains the overall adjustment of migrants to the natives.

4. Summary and Discussion

This paper measures the determinants of risk attitudes among western natives, eastern Germans and foreign nationals using an innovative new set of questions from the 2004 wave of the German Socio-economic Panel. The willingness to take risks is captured by an 11-point scale on a general risk perception as well as on specific contexts as driving, financial portfolio, sports and leisure, career, health, and trusting strangers. The perceived wisdom is that females and eastern Germans have higher risk aversions, and that foreign migrants exhibit stronger attitudes towards risks.

These claims have to be revised in part. The data analyzed in this paper confirm the consistently downward biased risk attitudes of females across all considered risk measures even after controls have been applied for family structure and household income, among other factors. However, individuals living in eastern Germany are in general more willing to take risks than their western counterparts. An understandable exception is the willingness of eastern Germans to trust strangers, which can be seen as a by-product of bad experiences under socialism.

Foreign nationals who actually immigrated into the country are in general more risk averse than natives, and their descendants are no different from the western German population. We find, overall, a strong intergenerational adjustment of risk attitudes. Foreign national males differ only in details from the risk attitudes of females. However, female foreign-born nationals are more markedly different from their native western counterparts than the male foreign-born. It is the strong intergenerational adjustment of foreign national females that is behind the migrant-native convergence in risk attitudes. These results on the migrants are likely generated by various selectivity issues. Their particular relevance needs to be further studied in future research.

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Table 1. Dependent Variable: Risk Attitudes - Full Sample

	General	Driving	Financial Portfolio	Sports and Leisure	Career	Health	Trusting Strangers
Age	-0.095***	0.100***	0.067***	-0.122***	0.106***	-0.010	-0.091***
	(0.022)	(0.024)	(0.021)	(0.023)	(0.026)	(0.023)	(0.023)
(Age ^ 2)/100	0.173***	-0.256***	-0.148***	0.153***	-0.274***	0.000	0.164***
	(0.045)	(0.050)	(0.043)	(0.048)	(0.053)	(0.048)	(0.047)
(Age ^ 3)/10,000	-0.134***	0.139***	0.073***	-0.104***	0.144***	-0.023	-0.107***
	(0.029)	(0.032)	(0.027)	(0.031)	(0.034)	(0.031)	(0.030)
Female	-0.660***	-0.989***	-0.718***	-0.638***	-0.592***	-0.585***	-0.222***
	(0.044)	(0.047)	(0.042)	(0.046)	(0.051)	(0.047)	(0.046)
Body height in centimeters	0.017***	0.017***	0.010***	0.016***	0.017***	0.008***	0.000
	(0.002)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Married	-0.237***	-0.127***	-0.079**	-0.264***	-0.329***	-0.256***	-0.301***
	(0.040)	(0.043)	(0.038)	(0.042)	(0.047)	(0.042)	(0.042)
Kids <16 years old present in HH	-0.058	-0.116**	-0.138***	-0.212***	-0.124***	-0.099**	-0.031
	(0.043)	(0.045)	(0.040)	(0.045)	(0.048)	(0.045)	(0.045)
Living in Eastern Germany	0.280***	0.081**	-0.042	0.074*	0.358***	0.167***	-0.222***
	(0.038)	(0.041)	(0.036)	(0.040)	(0.044)	(0.041)	(0.040)
Years of Education	0.086***	0.038***	0.106***	0.121***	0.138***	0.049***	0.155***
	(0.007)	(0.007)	(0.006)	(0.007)	(0.008)	(0.007)	(0.007)
Household Net Income	0.814***	0.997***	0.926***	0.722***	0.894***	0.481***	0.679***
	(0.078)	(0.083)	(0.074)	(0.082)	(0.089)	(0.084)	(0.082)
Foreign Nationality	0.059	-0.202	0.221	-0.196	-0.180	-0.176	0.086
	(0.144)	(0.154)	(0.137)	(0.151)	(0.163)	(0.154)	(0.151)
Foreing Nationality * Born abroad	-0.649***	-0.214	-0.433***	-0.402**	-0.333*	-0.033	-0.170
	(0.157)	(0.169)	(0.149)	(0.165)	(0.178)	(0.168)	(0.165)
Constant	2.845***	-0.374	-0.854	3.109***	-0.985	2.124***	3.408***
	(0.551)	(0.599)	(0.524)	(0.579)	(0.637)	(0.587)	(0.578)
Observations	18,993	18,004	18,899	18,744	17,339	18,996	19,012
R-squared	0.14	0.17	0.12	0.21	0.19	0.08	0.07

Standard errors in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%

Table 2. Dependent Variable: Risk Attitudes - Estimates by Gender

	Male						
	General	**Driving**	**Financial Portfolio**	**Sports and Leisure**	**Career**	**Health**	**Trusting Strangers**
Foreign Nationality	0.152	-0.331	0.206	-0.260	-0.337	-0.720***	-0.144
	(0.203)	(0.224)	(0.208)	(0.220)	(0.234)	(0.222)	(0.212)
Foreing Nationality	-0.676***	0.017	-0.421*	-0.318	-0.226	0.443*	0.179
* Born abroad	(0.222)	(0.245)	(0.227)	(0.241)	(0.257)	(0.242)	(0.232)
Observations	9,134	8,885	9,104	9,035	8,469	9,130	9,139
R-squared	0.10	0.12	0.10	0.18	0.14	0.07	0.06
	Female						
	General	**Driving**	**Financial Portfolio**	**Sports and Leisure**	**Career**	**Health**	**Trusting Strangers**
Foreign Nationality	-0.042	-0.050	0.220	-0.140	0.002	0.387*	0.304
	(0.204)	(0.211)	(0.178)	(0.207)	(0.227)	(0.215)	(0.216)
Foreing Nationality	-0.614***	-0.486**	-0.425**	-0.475**	-0.481*	-0.531**	-0.508**
* Born abroad	(0.222)	(0.231)	(0.194)	(0.225)	(0.247)	(0.234)	(0.235)
Observations	9,859	9,119	9,795	9,709	8,870	9,866	9,873
R-squared	0.12	0.13	0.07	0.19	0.19	0.06	0.06

Standard errors in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%