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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 direct 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
Keywords: Risk attitudes, ethnicity, native-migrant differences, gender differences, second-generation effects

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1. Introduction

In this paper we investigate the widely accepted claim of low risk aversion among foreign nationals using unique individual German survey data on a number of new and direct measures on risk attitudes comparing immigrants of the first and second generation with natives. We define as first-generation immigrants those who were born abroad, while as second generation we consider those foreign nationals who were born in Germany. Contrary to the expectations based on the public debate, our empirical study shows that first-generation immigrants are more risk averse than natives, while in the second generation risk preferences appear to equalize. Section 2 explains the research issue, the data and the risk measures used. Section 3 outlines the empirical findings. Section 4 summarizes.

2. Research Issue and Data

Migrants are typically considered to be more risk loving, mobile, talented and entrepreneurial than natives or at least than the population in the home country (Chiswick, 1978; Todaro, 1980; Zimmermann, 1995; Constant and Zimmermann, 2006). However, economic theory does not provide a clear prediction on the immigrants' risk attitudes. Standard migration models generate the prediction that migrants are less risk averse than the population in the country of out-migration (Heitmueller, 2005). Assuming risk aversion is negatively correlated with skills (Hartog et al., 2002), the self-selection models of migration (Chiswick, 1978; Borjas, 1987) suggest a differentiated distribution of migrants where the high-skilled are less risk averse and the low-skilled are less risk loving. Consequently, under equal distributions of risk preferences in the source and destination countries, the average migrant may be more or less risk loving than the average native.

The risk attitudes of immigrants and natives in the receiving country may also differ because there are different distributions of risk preferences in the source and destination country

populations, for example due to cultural differences. Even if migrants are drawn from the upper part of the distribution in their home country, they may still be more risk averse than the natives in the host country. Given this theoretical ambiguity, the extent to which the risk attitudes of immigrants and natives differ remains an empirical question.

Our analysis is based on a sample of roughly 21,000 adult 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 of life: driving, financial portfolio, sports and leisure, career, health, and trusting strangers. The consistency and validity of these self-reported risk measures for actual behavior has been documented by Dohmen et al. (2005) in a field experiment.

In our data, we identify immigrants as individuals holding foreign nationality. The largest part of foreign nationals are 'guestworkers' from southern Europe, who moved to Germany for blue-collar jobs from the early 1960s on, or their descendants still carrying a foreign passport. Another important group among the foreign nationals is migrants who have been originating from eastern Europe and outside Europe from the 1980s. By defining immigrants on the basis of citizenship, our analysis treats ethnic Germans who have been originating from eastern Europe during the 1990s as natives. If risk attitudes among these immigrants carrying German passports were closer to those of the foreign nationals than to those of German residents, the estimated native-migrants differences would become smaller. Some immigrants in Germany have acquired German citizenship. Since these are only few, a potential bias in our empirical estimates should be small.

To keep the analysis simple, we do not deal here with distinct ethnic groups in the immigrant population, but only distinguish between foreign nationals who were born abroad (first generation) or born in Germany (second generation). Ethnicity is controlled for by including a dummy, which is equal to one if individuals have a foreign nationality, and an interaction of foreign nationality with the being born abroad dummy. We contrast these immigrants to the native population consisting of residents in western and eastern Germany. Since almost all foreign nationals live in the west, our reference group is western German natives. A dummy for living in East Germany captures the eastern German natives.

The covariates we use to explain the willingness to assume risk include the age of the respondent, years of education, body height measured in centimeters, dummies for being female, married, having children less than 16 years old in the household, living in eastern Germany, and the total net household income in 10,000s Euros. We expect that risk taking decreases with age, when female, married or with young children, and increases with body height, years of education, and household income.

3. Empirical Results

In Table 1 we provide the estimation results for all indicators of risk attitudes. Missing values lead to different sample sizes in the various estimates. We report OLS estimates, since the results are behaviorally robust in comparison to more advanced techniques like the ordinal probit model but are easier to interpret. For all types of risk attitudes, the estimated impact of key socio-demographic characteristics is generally in line with our expectations. The 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. Individuals with young children are more risk averse towards driving, financial portfolio, sports and leisure, career and health. However, with respect to the general risk attitude and to trusting strangers, they are no different from the western German reference group without young

children. Body height predicts a larger willingness to take risks, but not to trusting other people. The estimated polynomial in age always implies a significant negative marginal effect of age on the willingness to take risk. These results are in line with Hartog et al. (2002), DeLeire and Levy (2004), Dohmen et al. (2005), and Frederik (2005).

Anecdotal evidence considers eastern Germans to be risk averse and less market oriented. This is, however, not supported by our analysis. 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 from the natives? Are risk preferences stable or do they adjust across generations? Table 1 shows that first-generation immigrants are less willing to take risks “in general” compared to western German natives. They are also more risk averse with regard to 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. Contrary to the perceived wisdom, 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 finding relying on self-selection: (i) The German welfare state has attracted low-skilled migrants, (ii) the 'guestworker' generation was generally provided with a job when entering Germany, and hence their migration decision involved very little risk, and (iii) the more risk loving migrants may have likely returned home already or moved on to other countries. An alternative explanation could be that Germany may have mainly attracted migrants from source countries with a more risk averse population.

Our results also show 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. This observation suggests that the environment for growing up

may have an important role in the formation of risk attitudes. Our finding implies that in the migrant population inter-generational transmission of risk preferences is relatively weak. A relative weak link between foreign parents and their children has also been observed regarding other behavior like educational choices (Gang and Zimmermann, 2000).

For a robustness check, we repeat our analysis on separate samples of males and females. Table 2 concentrates on the estimated parameters involving foreign nationality. The attitudes towards risk 'in general' deliver basically identical findings for both male and females: foreign nationals are significantly more risk averse (by about 0.6 points on the 11-point preference scale) when born abroad, and not different from natives when born in the host country. Some gender differences appear when considering the willingness to take specific risks. Whereas migrant women are markedly different and more risk averse than their native western counterparts, migrant men are not. First-generation women are especially risk averse in matters of driving, career, sports and leisure, and trusting strangers. This observation is likely to be correlated to their underexposure to these domains of life. The significantly lesser willingness of born abroad females to take risks in these domains enhances the native-migrant gap in risk attitudes estimated on the full sample. A peculiar gender pattern drives the insignificant overall first-generation effect delivered by the willingness to take health risks: for non-obvious reasons female foreign nationals born abroad are strongly more risk averse than German females, whereas the reverse is true for foreign born men in comparison to native men.

4. Summary

This paper provides the first direct evidence on risk attitudes differences between western natives and foreign nationals using an innovative new set of questions from the 2004 wave of the German Socio-economic Panel. Individuals' 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 migrants exhibit stronger attitudes towards risks than the native population.

This claim has to be reconsidered. Foreign nationals who have actually immigrated into the country are in general more risk averse than natives, and their descendants are no different than natives. We find, overall, a strong intergenerational adjustment of risk attitudes. Risk attitudes of foreign national males differ only in details from those of females. Various selectivity issues and general ethnic differences in risk attitudes may explain these findings.

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Table 1. Dependent Variable: Risk Attitudes - Full Sample

	General	Driving	Financial Portfolio	Sports and Leisure	Career	Health	Trusting Strangers
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)
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)
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)
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)
Children <16 years old present in household	-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)
Body height in centimeters	0.017***	0.017***	0.010***	0.016***	0.017***	0.008***	-0.00008
	(0.002)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
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***	-0.0003	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)
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)
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)
Foreign 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)
R-squared	0.14	0.17	0.12	0.21	0.19	0.08	0.07
Observations	18,993	18,004	18,899	18,744	17,339	18,996	19,012

Standard errors in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1% (two-tail test)

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)
Foreign nationality * born abroad	-0.676***	0.017	-0.421*	-0.318	-0.226	0.443*	0.179
	(0.222)	(0.245)	(0.227)	(0.241)	(0.257)	(0.242)	(0.232)
R-squared	0.10	0.12	0.10	0.18	0.14	0.07	0.06
Observations	9,134	8,885	9,104	9,035	8,469	9,130	9,139
	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)
Foreign nationality * born abroad	-0.614***	-0.486**	-0.425**	-0.475**	-0.481*	-0.531**	-0.508**
	(0.222)	(0.231)	(0.194)	(0.225)	(0.247)	(0.234)	(0.235)
R-squared	0.12	0.13	0.07	0.19	0.19	0.06	0.06
Observations	9,859	9,119	9,795	9,709	8,870	9,866	9,873

Standard errors in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1% (two-tail test)
OLS Regressions include additional controls for age, years of education, marital studies, presence of children less than 16 years old in the household, the total net household income in 10,000s Euros and body height.