

LWS

Working Paper Series

No. 16

**Catch me if I fall:
Cross-national differences in willingness to take
financial risks as a function of social and state
'cushioning'**

Claudia R. Schneider, Dennis D. Fehrenbacher, and Elke U. Weber

Revised May 2017



CROSS-NATIONAL
DATA CENTER
in Luxembourg

Luxembourg Income Study (LIS), asbl

Catch me if I fall:

**Cross-national differences in willingness to take financial risks as a function
of social and state ‘cushioning’**

Claudia R. Schneider

Department of Psychology, Columbia University, New York, NY 10027, USA

claudia.r.schneider@psych.columbia.edu

Dennis D. Fehrenbacher

Department of Accounting, Monash Business School, Monash University, Caulfield East,
VIC 3145, Australia

dennis.fehrenbacher@monash.edu

Elke U. Weber

Department of Psychology, Woodrow Wilson School of Public and International Affairs, and
Andlinger Center for Energy and the Environment, Princeton University, Princeton, NJ 08540,
USA

eweber@princeton.edu

Accepted for publication in *International Business Review*

March 2017

Acknowledgments: We would like to thank the Cross-National Data Center in Luxemburg for providing the data and for awarding the 2015 Aldi Hagedaars Memorial Award for the best working paper of 2014 by authors under the age of forty to an earlier version of this article. We would also like to extend a special thank you to the participants of the 2016 LIS Cross-National Data Center Summer Workshop in Luxembourg for thoughtful comments and suggestions.

Catch me if I fall:

Cross-national differences in willingness to take financial risks as a function of social and state ‘cushioning’

Abstract

Knowledge about the existence and source of national differences in willingness to take risks plays a vital role in ensuring successful communication, collaboration, and understanding across countries, from the personal to the organizational and political/social domain. The current study investigates differences in financial risk-taking willingness between countries as a function of social and state ‘cushioning’, i.e. the extent of a person’s social support network and the state’s social-safety support network. The study compares large-scale household data and self-reports on willingness to take financial risks across three countries differing in their state support networks: Austria, Italy and the United States. Results show that personal social support network size influences risk-taking willingness (social cushioning). Furthermore, and most notably, we find evidence of an interactive relationship between social and state cushioning. High state cushioning renders the influence of social cushioning on financial risk-taking willingness less important. Contributions to management and business practice as well as theory on the influence of personal distance to financial support on risk-taking willingness are discussed.

Keywords: cushion hypothesis, financial risk-taking willingness, cross-national comparison, social support network, state support network

Catch me if I fall:

Cross-national differences in willingness to take financial risks as a function of social and state ‘cushioning’

1. Introduction

Risk perception and risk preferences shape human behavior and decision making in virtually every area of life. From deciding whether to bungee jump, undergo cosmetic surgery, or invest in a promising stock, our willingness to take risks influences how we decide and behave in many situations. Among the factors that influence individual risk-taking, national background has been shown to play an important role (Weber and Hsee 1998, Hofstede 1980, 1984, 1991, 2001, Hofstede et al. 2010, Rieger et al. 2014). The way people are socialized and educated in a given country influences their behavior as individuals, citizens, or within organizations, giving rise to distinct country-based cultural identities (Weber et al. 1998). In an increasingly interconnected world with global commerce, it is of great importance to fully understand the role of country context on behavior and, in particular, risk perceptions and preferences (Delerue and Simon 2009; Mihet 2013; Rieger et al. 2014). Cross-national factors have been shown to shape risk-taking in a variety of business and management practices (Tse et al. 1988; Chow et al. 1996; Meschi and Riccio 2008; Brown et al. 2015). Thus, managers of international teams or CEOs of multinational corporations need to understand and take into account differences in risk perception and risk preferences among employees of various cultures and backgrounds and of customers in different countries. Even though corporate culture may be able to reduce cross-country differences among employees, it cannot override national culture.

National culture has been shown to influence various important aspects of how risk affects firms, such as the cost of equity capital (Gray et al. 2013), the survival of international joint ventures (Meschi and Riccio 2008), relational risk perceptions in alliance relationships (Delerue and Simon 2009), and the choice of management controls (Chow et al. 1999). Firms associated with high individualism cultures, low uncertainty aversion cultures, and low power distance cultures exhibit higher levels of risk-taking (Mihet 2013). Further, some evidence exists for the influence of culture on economic exchange. For instance, shared cultural heritage tends to increase foreign bank investments across countries (Owen and Temesvary 2015) and improves economic exchange through trust (Guiso et al. 2009). At the individual level, national culture also influences business and management decisions associated with risk. For instance, there is evidence that national culture influences escalating commitment to risky investment projects (Salter et al. 2013), knowledge sharing decisions (Schulz et al. 2009) and risk levels in investment decisions (Hsee and Weber 1999, Weber and Hsee 1998). Recently, a large international student survey showed high variation in the degree of risk aversion across 53 countries (Rieger et al. 2014), concluding that risk attitudes do not only depend on economic conditions but also on cultural factors such as individualism and uncertainty avoidance.

In our study, we examine two factors, social and state support, that are, in part, reflections of the national cultures of countries (Hsee and Weber 1999, Pfau-Effinger 2005), and their influence on willingness to take financial risks. Social support refers to the personal support network individuals can draw upon for financial help. The influence of such social support networks on individual willingness to take risks has been demonstrated in experiments using students (Hsee and Weber 1999, Mandel 2003). The effect has been termed ‘social cushioning’ (Hsee and Weber 1999, see also Weber and Hsee 1998): the larger the personal social network size the more individuals are willing to take risks, because the social support

network cushions potential adverse effects of taking risks. Since social network sizes differ across countries (e.g., smaller in individualist countries and larger in collectivist countries), this hypothesis has been associated with Hofstede's cultural factor of individualism vs. collectivism (Hofstede et al. 2010; Hofstede 1991, 1980, 1984, 2001).

We examine another type of support network, namely a state's social-safety net. We investigate whether state support networks can have similar effects as social support networks and whether these state nets moderate the effects of personal social networks on financial risk-taking willingness. Different levels of state support represent different forms of 'state cushioning' and capture the extent to which individuals can draw on the state for financial support. We argue that if state support is strong, there may be less need for a strong personal support network to cushion against risk. As such, state cushioning may be another avenue of cushioning against financial risk and may influence financial risk-taking willingness. In our study the influence of these social and state cushion effects on risk-taking are examined across three countries known to differ on the quality of state support, namely the United States, Italy and Austria, while controlling for variables known to affect risk preference, including the decision maker's age, gender, and economic status (Friend and Blume 1975, Dohmen et al. 2011).

The contributions of our study are three-fold. First, it contributes to the international business and management literature by adding to the knowledge on cross-national factors associated with (financial) risk-taking (e.g. Rieger et al. 2014). Second, it extends previous literature by testing the generalizability of the Weber and Hsee (1998) cushion hypothesis in two ways; examining it in a new set of countries across two continents, and with a large non-student sample of household heads. Third, our study examines an additional culture-level contributor to risk-taking, i.e. state cushioning, and provides important insights into the interaction between social and state cushioning. This contributes to the discussion on the influence of

personal distance to money on risk-taking (Trump et al. 2015). The two networks we examine are at different distance from the decision maker. A social support network is closer whereas the state support network is more distant.

2. Background and development of hypotheses

Cross-national studies of individual risk-taking usually identify specific dimensions of cultural differences between the countries and relate these differences to risk-taking. Culture is defined as “that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society” (Tylor 1871, p. 1). The influential cultural values framework developed by Hofstede (1980, 1984, 2001, 2010) is arguably the most widely used and validated framework (Kirkman et al. 2006, Liu and Dale 2009, Schulz et al. 2009) of cultural differences and identifies six aspects of national culture: individualism, uncertainty avoidance, masculinity, power distance, long term orientation, and indulgence. Individualism is probably the most frequently studied cultural dimension and has been associated with risk preferences (Bontempo et al. 1997, Weber and Hsee 1998, Rieger et al. 2014). It has furthermore been used to develop the *cushion hypothesis* (Weber and Hsee 1998, Weber et al. 1998; Hsee and Weber 1999). The cushion hypothesis captures that in a collectivist culture, such as China, in contrast to a more individualist culture, such as the United States of America (Hofstede et al. 2010; Hofstede 1991, 1980, 1984, 2001; Triandis 1983), individuals are strongly embedded in close family and social networks which may provide financial support to the individual when needed. Hsee and Weber (1999) show that this social network serves as a ‘cushion’ so that Chinese (and only those Chinese individuals with extensive social networks) perceive risks of the same uncertain financial options as less risky compared to Americans. Social networks work as a collective risk diversification and insurance that mitigates the negative outcomes of risky options. This social diversification

only provides a mechanism for risk sharing for outcomes that can be transferred between members of an extended family or social network, such as money, but not health or grades. This notion was supported by significant differences in financial risk-taking between Chinese and American MBA students but non-significant differences in risk-taking in medical and educational settings (Hsee and Weber 1999).¹ Hsee and Weber (1999) confirm national differences in the size of social networks in China and America, and also show the mediating role of social support network size. The social network information, i.e. the number of people a person could call on for financial support, mediated the role of nationality (Chinese or American). That is, when Hsee and Weber (1999) controlled for the number of people from whom individuals could request financial help when in need, nationality no longer predicted risk-taking. Mandel (2003) provided further evidence that social networks and their size may influence risk-taking, showing that priming an interdependent self in college undergraduates by focusing them on belonging to a social group, as well as connectedness and harmony with that group, compared to priming an independent, individualistic self, led to more risk-seeking behavior in financial decision making. The effect was mediated by social network size of the undergraduates.

To investigate the effect of social cushioning on risk-taking, we use proxies of social network size in large-scale non-student household survey data from an extended set of countries that differs from the original set used to establish the cushion hypothesis: Italy, Austria, and the USA. As explained further below, we chose this set of countries deliberately because its members have different degrees of state cushioning. Investigating effects within these countries thus allows us to examine the generalizability of the cushion hypothesis in

¹ It is important to note that although the cushion hypothesis was created using Hofstede's individualism dimension as a distinction, it differs significantly from it. It predicts interactions between the extent to which a person has access to social cushioning and situational factors such as finances, health, or grades on risk-taking willingness. In the original Hsee and Weber (1999) study those situational factors had to do with whether the outcomes of the risky decisions people were making could be transferred to others. In our study we ultimately examine the interactive relationship with another variable, the state support network.

environments that differ on another dimension. We expect that in all of these countries the more immediate support an individual can draw on in his/her personal social network, the higher the individual's financial risk-taking willingness.

H1: The more extensive the social cushioning, the greater the willingness to take financial risks.

Parallel to the important role social context and support may play in influencing and shaping an individual's perception of risk and risk preferences, the state and state support can be viewed as another contextual factor. Thus, our study goes beyond the social support network cushion by Hsee and Weber (1999) to investigate the additional influence of the state's social-safety support network, as proxied by a country's welfare regime. Different countries possess different welfare regimes. We define a welfare regime as a country's laws and practices pertaining to the existence, extent, and availability of government welfare and other forms of state support. The three countries under investigation possess different welfare systems in terms of social assistance and benefits for needy individuals (Esping-Andersen 1990). We use Esping-Andersen's typology of welfare state classification (*Three Worlds of Welfare Capitalism*, 1990), which is arguably the most widely used typology, referred to as a "modern classic" (Arts and Gelissen 2002, p.138), in combination with OECD data on public social expenditure at the time of data collection. According to Esping-Andersen's typology, Austria has the most elaborate government support net for people in need. Italy is classified below Austria, but still higher than the USA, which falls at the bottom of the continuum and offers the least government support (Esping-Andersen 1990, for a classification review see Arts and Gelissen 2002). According to Esping-Andersen (1990), the USA is a liberal welfare regime, Italy is a conservative welfare regime, and Austria a social-democratic welfare regime. OECD data on public social expenditure, as a percent of GDP for 2005, supports Esping-

Andersen's (1990) classification. Austria has the highest expenditure (26.8%), followed by Italy (24.9%) and the USA (15.5%) (OECD 2016).

Following the logic of the cushion hypothesis, a state-supported cushion that offers help to those in need may influence risk perception in financial decision making and thus affect risky decisions. Our state cushion argument is consistent with the logic and results of Boubakri et al. (2013), who investigated the influence of political institutions on risk-taking at the firm level. They found that sound political institutions, controlled corruption, and decreased government extraction and predation were positively correlated with corporate risk-taking. Our proposed state cushioning effect similarly predicts that a more reliable and safer financial environment, compared to an unpredictable and volatile one, may provide a cushion against risk and thus influences risk-taking positively.

Thus, the state cushion hypothesis would predict, *ceteris paribus*, the least risk aversion for Austrians, due to a lower perception of risk of uncertain financial options in a strong welfare state/social safety state, and the highest risk aversion for Americans, due to a higher perception of risk in a weaker welfare state. Hypothesis 2 consequently states:

H2: The more extensive the state cushioning, the greater the willingness to take financial risks.

In Hypothesis 2 we predict a direct effect of state cushioning on willingness to take financial risk. However, it may well be that the influence is more indirect and that state support moderates the effect of a personal social support network. As such there may be a cannibalizing effect such that social cushioning becomes less important in the presence of strong state cushioning. For instance, in countries with low state cushioning, such as the USA, social cushioning might play a more important role compared to countries with high state cushioning, such as Austria, in which a social support network might be less important due to

readily available government aid. Consequently, in addition to individual main effects of social and state cushioning on risk-taking, the two variables may interact. Our third and last hypothesis thus states:

H3: Social and state cushioning interact in influencing risk-taking willingness, such that availability of state cushioning moderates the effect of social cushioning.

3. Method

We use the Luxembourg Wealth Study Database (2013), which contains large-scale harmonized household survey data from several countries. The use of such household data for research on risk preferences has been shown to be behaviorally valid (Dohmen et al. 2011). The variable financial risk-taking willingness, provided in the data sets of all three countries examined, has been used in prior studies on cross-national risk perception and preferences (Weber and Hsee 1998; Hsee and Weber 1999) and is thus comparable. In addition, we identify proxies for social cushioning in the database (see below). Since the surveys are interview-based and not self-administered, a high level of data quality can be expected. Data collection and analysis was conducted by professional bodies possessing long track-records and high expertise. As such, the size and quality of the dataset allows us to draw reliable conclusions about the questions under investigation. Table 1 gives an overview of the surveys used in our study.

Table 1: Survey outline and definitions of household head

Country	Survey outline	Definition household head
Austria	<p><i>Origin:</i> The Austrian survey is called the Survey of Household Financial Wealth and has been administered by the Oesterreichische Nationalbank (National Bank of Austria).</p> <p><i>Aims/Focus:</i> It aims at providing a comprehensive picture of the distribution and composition of financial wealth.</p> <p><i>Information included:</i> income, household composition, assets, debt and wealth. Wealth data were collected at the household level.</p> <p><i>N:</i> 2,556 households were interviewed in a multistage, stratified sampling design.</p>	A self-declared household head or household member with the most accurate knowledge about household finances.
Italy	<p><i>Origin:</i> The Italian data originates from the Survey of Household Income and Wealth (SHIW) administered by the Bank of Italy. It is a cross-sectional and partly longitudinal interview survey.</p> <p><i>Aims/Focus:</i> The focus of the survey is to provide information on household microeconomic behavior within Italy.</p> <p><i>Information included:</i> demographic characteristics, income, wealth and expenditure.</p> <p><i>N:</i> In 2004 approximately 8,000 households were sampled with a two-stage stratified sampling, with the stratification of the municipalities by region and demographic size. Our sample consists of 2,808 households who answered all questions relevant to our study.</p>	Person primarily responsible for the household budget.
USA	<p><i>Origin:</i> The Survey of Consumer Finances (SCF) has been administered by the Federal Reserve Board and the US Department of Treasury.</p> <p><i>Aims/Focus:</i> The focus of the study is to provide detailed information on US families' balance sheets and their use of financial services.</p> <p><i>Information included:</i> household composition, education, health, housing and wealth, assets, pensions and labor force participation.</p> <p><i>N:</i> The main sample is a stratified, multi-stage area probability sample (a geographically-based random sample) to provide a broad distribution of the population. Our relevant sample consists of 4,519 households.</p>	Economically dominant person.

3.1 Dependent variable

Our dependent variable willingness to take financial risk is defined and measured via savings and investment behavior for all three countries. Savings and investment behavior is one particular risk domain (DOSPERT; Weber et al. 2002; Blais and Weber 2006). This is important in light of the fact that risk-taking has been shown to be domain specific, i.e. that risk perception and behavior may differ between financial, health/safety, ethical, social, or recreational risky decisions. Table 2 shows the questions used for determining willingness to take financial risks in each country. Although the questions used in the three countries are not verbatim copies of each other, they are comparable across countries since they measure the same underlying concept: willingness to take financial risks. Furthermore, all questions are measured on a four-point scale with scale point 1 identifying the respondent as most risk

averse and scale point 4 as most risk seeking. This provides consistency across all three countries and allows us to group respondents into four financial risk-taking willingness categories, hereafter referred to as risk categories (risk category 1 = highly risk averse, risk category 2 = risk averse, risk category 3 = risk seeking, risk category 4 = highly risk seeking), and create the variable RISK. The comparability of the dependent variable across the countries examined is further indicated by our results regarding the relationship between risk preference and sex, age, and wealth, which are consistent with previous findings across countries. Furthermore, the simple self-report measure of risk preference used has been documented to predict consequential real-world risky decisions as well as or better than risk preference inferred from choices between financial lotteries (Hsee and Weber 1999, Dohmen et al. 2011).

The data in the three samples were collected at different points in time within a relatively narrow time frame between June 2004 and July 2005, as determined by the professional bodies responsible for the data collection. Economic conditions that may strongly influence financial risk-taking did not change very much over this time period (see the longitudinal data analysis by Weber et al. 2013). More specifically, the Austrian data was collected in Summer/Autumn 2004, the Italian data between February and July 2005, and the U.S. data between July and December 2004. Thus, we believe it is safe to assume that the data set is not biased by changing economic conditions.

Table 2: Survey questions for measuring financial risk-taking willingness and definition of risk categories

Country	Survey question	Answer choices (risk categories)
Austria	“For savings I prefer secure investment instruments and avoid risk”	1 = completely applicable 2 = rather applicable 3 = rather not applicable 4 = completely inapplicable
Italy	“When managing your financial investments, would you describe yourself as someone who looks for:”	1 = low returns, without any risk of losing your capital 2 = a reasonable return, with a good degree of security for your invested capital 3 = a good return, with reasonable security for your invested capital 4 = very high returns, regardless of a high risk of losing part of your capital
USA	“Which of the statements on this page comes closest to the amount of financial risk that you and your spouse/partner are willing to take when you save or make investments?”	1 = not willing to take any financial risks 2 = take average financial risks expecting to earn average returns 3 = take above average financial risks expecting to earn above average returns 4 = take substantial financial risks expecting to earn substantial returns

3.2 Independent variables and data analysis

The three countries in our sample are ordered by welfare regime, constituting the state cushioning order, and the degree to which a state provides a welfare network. As discussed above, based on Esping-Andersen (1990) and supported by OECD data on public social expenditure in 2005 (OECD 2016), the three countries are ordered as follows: Austria with the highest state cushioning or best welfare system, the USA with the lowest state cushioning or weakest welfare system, and Italy in between. Public social expenditure levels for 2005 reflect the economic situation at the time of data collection. In fact, public social expenditure levels changed among countries as a function of the global financial crisis in 2008 (OECD 2016). We create a welfare regime variable (WELFREG: 1 = Austria, 2 = Italy, 3 = USA) to model the differences between these three countries.²

² A control analysis that did not assume rank-ordering of countries according to welfare regime was also conducted and is described in the control analysis section below. It showed the same results as our main analysis.

The social cushioning predictor variables are selected in order to mimic Hsee and Weber's (1999) measure as closely as possible given the available data. Hsee and Weber (1999) used the number of people a respondent could approach if he or she needed financial help or material support as an indicator of the size of an individual's social network from a financial support perspective. Similar indicators are regularly available through household surveys. The number of earners in a household (NUMEARN) serves as a plausible proxy for the number of people a respondent could approach when in financial need. In case of only one earner all financial responsibility for the household lies only on one person; if something goes wrong no immediate financial help is available. On the contrary, if there are two or more earners in a household, decision makers might be more willing to take financial risk since material support is readily available.

In addition, the number of children living in the same household may give an indication of how much material support by others a respondent may have in later stages of his or her life. Although, of course, dependent children cannot provide immediate financial help, they can still constitute a relevant support network for more long-term financial decisions, since they can support their parents once they are grown up. Thus, we use the number of children under 18 living in the same household (NUMCH18) as another proxy.

Furthermore, we incorporate three control variables, age (AGE), sex (SEX, 0 = male, 1 = female), and wealth (WEALTH), that have been shown to influence risk preferences (Friend and Blume 1975; Croson and Gneezy 2009; Dohmen et al. 2011) in our model. Female as compared to male, older as compared to younger and poorer as compared to wealthier

individuals tend to be more risk averse (Friend and Blume 1975; Croson and Gneezy 2009; Dohmen et al. 2011).³

The wealth variable is computed as the difference between TFA1 and TD, both available in the household surveys for all three countries. TFA1 is the total financial assets calculated by the sum of deposit accounts, bonds, stocks, and mutual funds. TD is the total debt reflecting the sum of all available debts, including home secured, vehicle loans, total instalment debt, educational loans, other loans from financial institutions, and informal debt. TFA1 and TD are comparable figures across nations in 2002 USD using Consumer Price Indices and Purchase Power Parities (OECD 2005). We calculate WEALTH as TFA1-TD. We test our hypotheses using a stepwise multiple linear regression model.

4. Results

4.1 Descriptive analysis

We begin by comparing risk-taking willingness by country on a descriptive basis. Figure 1 shows the mean self-reported levels of willingness to take financial risks for each country. For all three countries, mean willingness to take risks is below two, i.e. people across all investigated countries are on average risk averse rather than risk seeking. However, a clear difference between the two European countries and the United States can be detected. While Austria and Italy seem to be quite similar in willingness to take risk, they are both clearly different from the United States which scores higher, i.e. there is a notably higher proportion of Americans who report willingness to engage in financially risky options than Italians and Austrians. Risk-taking willingness in Austria and Italy does not differ notably. This pattern, at

³ Weber, Blais, Betz (2002) show that gender differences in risk-taking are completely mediated by differences in the perceptions of risk, and Gao et al. (2014) show partial mediation for the age difference in risk-taking. A potential explanation for the influence of wealth on risk-taking is that wealthier individuals perceive situations as less risky compared to poorer people who are very conscious of their monetary constraints.

first hand, is not in line with the state cushion hypothesis, which predicts that individuals in countries with stronger state support networks, approximated by the availability of government aid and welfare, will be less risk averse or more risk seeking.

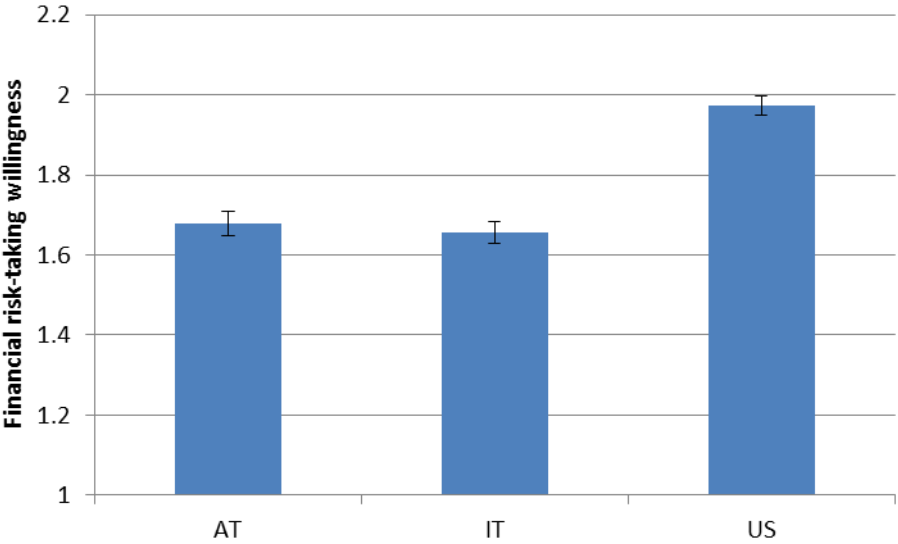


Figure 1: Financial risk-taking willingness per country, depicting country means ranging from 1 (low risk-taking willingness) to 4 (high risk-taking willingness); error bars denote 95% confidence intervals

For a more nuanced picture, it seems useful to assess willingness to take financial risks by looking at the number of choices for each risk-taking category in all three countries. Table 3 and Figure 2 show risk-taking willingness counts and percentages of the respondents selecting one of the four risk categories per country. Consistent with the mean levels of risk-taking in Figure 1, Figure 2 and Table 3 confirm that people in all three countries are more likely to be risk averse than risk seeking in regard to financial risks.

Table 3 shows that for Austria and Italy, percentages decrease monotonically from risk category 1 to 4. In the USA more people select risk 2 (41.47%) compared to risk 1 (33.15%), consistent with the more risk seeking nature of Americans compared to Austrians and Italians. Comparing countries per category yields an interesting pattern. Austria and Italy score higher than the USA in category 1 (highly risk averse). For categories 2 to 4, the USA score higher

compared to Austria and Italy, with the difference increasing with greater levels of risk seeking. This suggests higher risk-taking willingness for Americans as compared to individuals from the two European countries.

Table 3: Risk-taking willingness counts per country

Country	Risk 1		Risk 2		Risk 3		Risk 4		Total	N	%
	N	%	N	%	N	%	N	%			
Austria	1208	47.26	1015	39.71	280	10.95	53	2.07	2556	100	
Italy	1379	49.11	1039	37.00	363	12.93	27	0.96	2808	100	
USA	1498	33.15	1874	41.47	916	20.27	231	5.11	4519	100	

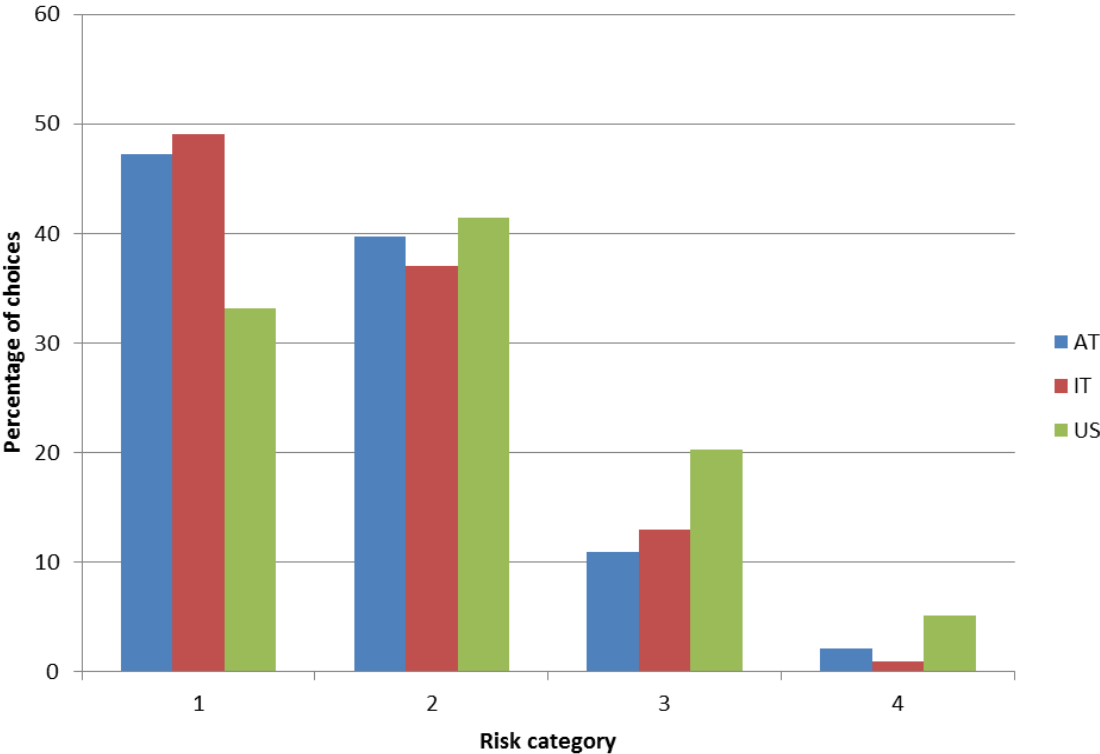


Figure 2: Risk-taking willingness per country and risk category in percent (risk category 1 = highly risk averse, risk category 2 = risk averse, risk category 3 = risk seeking, risk category 4 = highly risk seeking)

Tables 4 through 6 show summary statistics of the wealth and demographic variables clustered according to the risk-taking willingness variable (RISK) for each country. A difference in the means between the four risk groups gives the first indication that the independent variables influence risk-taking willingness within each country.

Taking Italy (Table 5) as an example, a highly risk seeking individual ($RISK = 4$) tends to have more children ($NUMCH = 0.63$) and more earners in the household ($NUMEARN = 1.52$) than a highly risk averse individual ($RISK = 1$; $NUMCH = 0.3$; $NUMEARN = 0.87$). A highly risk seeking individual tends to be younger ($AGE = 49.74$), is more likely to be male ($SEX = 0.37$, i.e. 37 % is female), and possesses a higher net wealth ($WEALTH = \$56,523.93$) than the average risk averse individual ($AGE = 59.98$; $SEX = 38.07$, i.e. 38.07 % is female; $WEALTH = \$29,582.95$).

Table 4: Financial risk-taking willingness in Austria by demographics and wealth variables

Risk		NUMCH	NUMEARN	AGE	SEX	WEALTH
1	Mean	0.42	2.43	54.64	0.4056	21,713.70
	N	1,208	1,208	1,208	1,208	1,208
	Minimum	0	1	19	0	-349,025
	Maximum	6	3.50	91	1	1,256,200
	Std. Error of Mean	0.03	0.03	0.42	0.01	2,263.55
2	Mean	0.52	2.55	50.44	0.3143	29,948.33
	N	1,015	1,015	1,015	1,015	1,015
	Minimum	0	1	19	0	-372,300
	Maximum	5	3.50	85	1	1,914,200
	Std. Error of Mean	0.03	0.03	0.44	0.01	3,947.80
3	Mean	0.47	2.51	46.75	0.3107	44,590.65
	N	280	280	280	280	280
	Minimum	0	1	18	0	-365,200
	Maximum	4	3.50	84	1	1,117,620
	Std. Error of Mean	0.05	0.07	0.86	0.03	9,509.89
4	Mean	0.53	2.15	47.74	0.3774	48,810.81
	N	53	53	53	53	53
	Minimum	0	1	23	0	-119,000
	Maximum	3	3.50	78	1	514,200
	Std. Error of Mean	0.13	0.15	1.96	0.07	17,651.54
Total	Mean	0.47	2.48	51.97	0.3584	28,051.66
	N	2,556	2,556	2,556	2,556	2,556
	Minimum	0	1	18	0	-372,300
	Maximum	6	3.50	91	1	1,914,200
	Std. Error of Mean	0.02	0.02	0.29	0.01	2,199.24

Notes: classification variable: RISK (risk-taking willingness, on an ordinal scale, from 1 (low financial risk-taking willingness) to 4 (high financial risk-taking willingness), as defined by Table 2); independent variables: NUMCH (number of children under 18), NUMEARN (number of earners, 0 = no earners, 1 = one earner, 1.5 = at least one earner, 2 = two earners, 2.5 = at least two earners, 3 = three earners, 3.5 = at least three earners), AGE (age of household head), SEX (sex of household head, 0 = male (recoded from 1 = male in original dataset), 1 = female (recoded from 2 = female in original dataset); thus mean for SEX simultaneously constitutes percentage of women in the respective category), WEALTH (financial standing, calculated as TFA1 (total financial assets, sum of deposit accounts, bonds, stocks and mutual funds) - TD (total debt, sum of all available debts including home secured, vehicle loans, total instalment debt, educational loans, other loans from financial institutions, and informal debt)).

Table 5: Financial risk-taking willingness in Italy by demographics and wealth variables

Risk		NUMCH	NUMEARN	AGE	SEX	WEALTH
1	Mean	0.30	0.87	59.98	0.3807	29,582.95
	N	1,379	1,379	1,379	1,379	1,379
	Minimum	0	0	19	0	-192,430.25
	Maximum	5	4	94	1	2,289,033.47
	Std. Error of Mean	0.02	0.03	0.41	0.01	2,223.62
2	Mean	0.41	1.18	54.75	0.2849	46,850.04
	N	1,039	1,039	1,039	1,039	1,039
	Minimum	0	0	19	0	-190,000
	Maximum	4	5	94	1	2,150,229.04
	Std. Error of Mean	0.02	0.03	0.43	0.01	3,071.99
3	Mean	0.48	1.21	53.27	0.2590	62,868.19
	N	363	363	363	363	363
	Minimum	0	0	18	0	-253,000
	Maximum	5	5	88	1	2,460,817.22
	Std. Error of Mean	0.04	0.05	0.69	0.02	8,032.46
4	Mean	0.63	1.52	49.74	0.370	56,523.93
	N	27	27	27	27	27
	Minimum	0	0	35	0	-152,000
	Maximum	3	4	72	1	637,842.33
	Std. Error of Mean	0.17	0.15	1.97	0.04	29,913.81
Total	Mean	0.37	1.03	57.08	0.3262	40,533.97
	N	2,808	2,808	2,808	2,808	2,808
	Minimum	0	0	18	0	-253,000
	Maximum	5	5	94	1	2,460,817.22
	Std. Error of Mean	0.01	0.02	0.28	0.01	1,920.61

Notes: classification variable: RISK (risk-taking willingness, on an ordinal scale, from 1 (low financial risk-taking willingness) to 4 (high financial risk-taking willingness), as defined by Table 2); independent variables: NUMCH (number of children under 18), NUMEARN (number of economically active persons, persons receiving income, in household), AGE (age of household head), SEX (sex of household head, 0 = male (recoded from 1 = male in original dataset), 1 = female (recoded from 2 = female in original dataset); thus mean for SEX simultaneously constitutes percentage of women in the respective category), WEALTH (financial standing, calculated as TFA1 (total financial assets, sum of deposit accounts, bonds, stocks and mutual funds) - TD (total debt, sum of all available debts including home secured, vehicle loans, total instalment debt, educational loans, other loans from financial institutions, and informal debt)).

Table 6: Financial risk-taking willingness in the USA by demographics and wealth variables

Risk		NUMCH	NUMEARN	AGE	SEX	WEALTH
1	Mean	0.66	0.81	51.77	0.3672	439,495.82
	N	1,498	1,498	1,498	1,498	1,498
	Minimum	0	-1	18	0	-12,249,780
	Maximum	7	2	95	1	140,079,200
	Std. Error of Mean	0.03	0.02	0.46	0.01	147,674.82
2	Mean	0.65	1.13	51.14	0.1585	2,562,889.63
	N	1,874	1,874	1,874	1,874	1,874
	Minimum	0	-1	19	0	-78,381,800
	Maximum	6	2	92	1	561,700,000
	Std. Error of Mean	0.02	0.02	0.35	0.01	415,577.46
3	Mean	0.80	1.22	48.59	0.1114	2,808,011.94
	N	916	916	916	916	916
	Minimum	0	-1	19	0	-121,378,200
	Maximum	6	2	89	1	206,442,000
	Std. Error of Mean	0.04	0.02	0.44	0.01	484,012.60
4	Mean	0.81	1.15	49.34	0.1169	6,777,790.68
	N	231	231	231	231	231
	Minimum	0	-1	20	0	-43,070,000
	Maximum	4	2	83	1	183,882,350
	Std. Error of Mean	0.07	0.05	0.97	0.02	1,568,704.56
Total	Mean	0.69	1.04	50.74	0.2160	2,124,148.81
	N	4,519	4,519	4,519	4,519	4,519
	Minimum	0	-1	18	0	-121,378,200
	Maximum	7	2	95	1	561,700,000
	Std. Error of Mean	0.02	0.01	0.23	0.01	220,451.42

Notes: classification variable: RISK (risk-taking willingness, on an ordinal, from 1 (low financial risk-taking willingness) to 4 (high financial risk-taking willingness), as defined by Table 2); independent variables: NUMCH (number of children under 18), NUMEARN (number of economically active persons, persons receiving income, in household, 0 = No earners, 1= At least 1, 2 = At least 2, -1 = household head and spouse/partner report 0 earnings, but reported household income >> 0), AGE (age of household head), SEX (sex of household head, 0 = male (recoded from 1=male in original dataset), 1 = female (recoded from 2=female in original dataset); thus mean for SEX simultaneously constitutes percentage of women in the respective category), WEALTH (financial standing, calculated as TFA1 (total financial assets, sum of deposit accounts, bonds, stocks and mutual funds) - TD (total debt, sum of all available debts including home secured, vehicle loans, total instalment debt, educational loans, other loans from financial institutions, and informal debt)).

4.2 Main effects of social and state cushioning

Table 7 shows the results of the stepwise multiple linear regression analysis for willingness to take financial risk (RISK).

Table 7: Stepwise multiple linear regression on financial risk-taking willingness

		B	Std. Error	Beta (std.)	t	Sig.
Step 1	Constant	1.128	0.033		34.686	
	WELFREG	0.232	0.011	0.235	20.461	< 0.001**
	NUMCH	0.022	0.009	0.026	2.541	0.011*
	NUMEARN	0.111	0.008	0.155	13.393	< 0.001**
Step 2	Constant	2.036	0.063		32.232	
	WELFREG	0.167	0.012	0.169	14.258	< 0.001**
	NUMCH	-0.013	0.009	-0.015	-1.429	0.153
	NUMEARN	0.056	0.009	0.078	6.284	< 0.001**
	AGE	-0.007	0.001	-0.127	-11.438	< 0.001**
	SEX	-0.248	0.018	-0.138	-13.510	< 0.001**
	WEALTH	<0.001	<0.001	0.077	7.907	< 0.001**
Step 3	Constant	2.182	0.069		31.689	
	WELFREG	0.088	0.019	0.089	4.615	< 0.001**
	NUMCH	-0.007	0.026	-0.008	-0.266	0.790
	NUMEARN	-0.037	0.02	-0.052	-1.872	0.061
	AGE	-0.006	0.001	-0.119	-10.635	< 0.001**
	SEX	-0.246	0.018	-0.137	-13.41	< 0.001**
	WEALTH	<0.001	<0.001	0.08	8.231	< 0.001**
	INT_WELFREG * NUMCH	-0.002	0.01	-0.005	-0.173	0.863
	INT_WELFREG * NUMEARN	0.050	0.01	0.129	5.267	< 0.001**

Notes: dependent variable: RISK (risk-taking willingness, on an ordinal scale, from 1 (low financial risk-taking willingness) to 4 (high financial risk-taking willingness), as defined by Table 2); variable entered on step 1: WELFREG (welfare regime; on an ordinal scale; 1 = Austria, 2 = Italy, 3 = USA), NUMCH (number of children under 18), NUMEARN (number of economically active persons in household); variables entered on step 2: AGE (age of household head), SEX (sex of household head), WEALTH (financial standing (wealth) calculated as TFA1 (total financial assets) - TD (total debt)); variables entered on step 3: interaction terms between WELFREG (welfare regime) and NUMCH (number of children under 18) and NUMEARN (number of economically active persons in household) respectively; N = 9883; WEALTH's B and Std. Error are <0.001 because average and range of wealth variable values are relatively large compared to other variables; thus, the change for a unit change in wealth is comparably small; * - significant at the 0.05 level, ** - significant at the 0.01 level.

The social cushioning variables, number of children under 18 (NUMCH) and number of earners (NUMEARN) in a household, are both significant (Step 1, Table 7, NUMCH p = 0.011, NUMEARN p < 0.001), supporting **H1**. There is a positive relationship between both

variables and RISK, i.e. the more children and earners in a household, the higher the financial risk-taking willingness, which speaks in favor of social cushioning.⁴

WELFREG is used to examine the effect of state cushioning (**H2**). WELFREG is significant in Step 1 (Table 7, $p < 0.001$) with a positive Beta. Thus, financial risk-taking willingness significantly differs across the three countries under investigation as suggested by the descriptive data (Figures 1 and 2, Table 3); however, the relationship is opposite in direction to that predicted by the state cushion hypothesis. The lower state cushioning (WELFREG values from 1 = Austria (highest state cushioning) to 3 = USA (lowest state cushioning)), the higher the financial risk-taking willingness.⁵ Americans are found to be significantly more risk seeking in terms of financial risk-taking willingness compared to Austrians and Italians, despite less state cushioning. Thus, the results do not support H2.

Interestingly, in Step 2 of the regression analysis (Table 7), NUMCH is no longer significant, whereas WELFREG and NUMEARN are still significant. Therefore, when controlling for sex (SEX), age (AGE), and total net wealth (WEALTH), some parts of social cushion characteristics become less important. This might be due to relationships between the number of children and wealth and age. Examining the control variables in more detail we find directions as expected (Step 2 in Table 7); the lower the age (AGE), the higher the financial risk-taking willingness. Females are less likely to take financial risk as compared to males (SEX variable 0 = male and 1 = female). Greater total net assets increase financial risk-taking willingness.

⁴ In order to test for collinearity, we use the variance inflation factor (VIF) as well as Pearson's correlation coefficient. VIF values higher than 10 are generally regarded as problematic (Chatterjee and Hadi 2006). Computing the VIF values per component does not indicate problems in terms of collinearity as all components possess a VIF value lower than 1.64. All Pearson's correlations coefficients for the multiple regression and the country specific patterns (which will be discussed in the next section) lie below 0.6. Furthermore, all predictors are exogenous variables (demographics), which are not influenced by a respondent's personal judgement but are exogenously given. Thus, the present mild correlations between predictors do not constitute a problem.

⁵ A country-only model is presented in the control analysis in Table 8 Step 1.

4.3 Control analysis

Based on Esping-Andersen (1990) and OECD (2016), we treated the degree of state cushioning in the three countries under investigation as an ordinal variable by coding their specific welfare regimes as follows: 1 = Austria (best welfare system), 2 = Italy (medium welfare system), and 3 = USA (weakest welfare system). In a control analysis, we treated the three countries as being independent (categorical variable) instead of rank ordered by state support network (ordinal variable), by dummy coding them. We use USA as a baseline group (coded 0) and compare Austria and Italy (coded 1) against it, performing the same several step multiple linear regression. Results as shown in Table 8 confirm our previous results (Table 7) as we find a significant influence of AGE, SEX, WEALTH and NUMEARN. NUMCH becomes insignificant in Step 3 of Table 8.

Table 8: Stepwise multiple linear regression on financial risk-taking willingness using dummy coding

		B	Std. Error	Beta (std.)	t	Sig.
Step 1	Constant	1.973	0.012		166.253	< 0.01
	USvsAT	-0.295	0.02	-0.159	-14.94	< 0.001**
	USvsIT	-0.316	0.019	-0.175	-16.482	< 0.001**
Step 2	Constant	1.857	0.015		122.431	< 0.001
	USvsAT	-0.431	0.024	-0.232	-18.244	< 0.001**
	USvsIT	-0.308	0.019	-0.171	-16.028	< 0.001**
	NUMCH	0.022	0.009	0.025	2.488	0.013*
	NUMEARN	0.098	0.009	0.137	11.208	< 0.001**
Step 3	Constant	2.564	0.047		54.791	< 0.001
	USvsAT	-0.303	0.024	-0.164	-12.475	< 0.001**
	USvsIT	-0.238	0.019	-0.132	-12.315	< 0.001**
	NUMCH	-0.013	0.009	-0.015	-1.384	0.166
	NUMEARN	0.043	0.009	0.06	4.677	< 0.001**
	AGE	-0.007	0.001	-0.124	-11.157	< 0.001**
	SEX	-0.253	0.018	-0.14	-13.746	< 0.001**
WEALTH	<0.001	<0.001	0.074	7.596	< 0.001**	

Notes: dependent variable: RISK (risk-taking willingness, on an ordinal scale, from 1 (low financial risk-taking willingness) to 4 (high financial risk-taking willingness), as defined by Table 2); variables entered on step 1: USvsAT (coded as 0 for USA, coded as 1 for Austria), USvsIT (coded as 0 for USA, coded as 1 for Italy); variables entered on step 2: NUMCH (number of children under 18), NUMEARN (number of economically active persons in household); variables entered on step 3: AGE (age of household head), SEX (sex of household head), WEALTH (financial standing (wealth) calculated as TFA1 (total financial assets) - TD (total debt)); N = 9883; WEALTH's B and Std. Error are <0.001 because average and range of wealth variable values are relatively large compared to other variables; thus, the change for a unit change in wealth is comparably small; * - significant at the 0.05 level, ** - significant at the 0.01 level.

4.4 Interaction effects of social and state cushioning: Country-specific patterns

The above regressions allowed us to observe factors at play across all three countries. To empirically examine evidence for an interactive influence of social and state cushioning on willingness to take financial risk (**H3**), we include interaction terms (Step 3 Table 7) and analyze social cushioning within each of the three different welfare regimes (Table 9).

Step 3 of Table 7 includes interaction terms WELFREG with NUMCH and WELREG with NUMEARN. Like the number of children main effect, the interaction including NUMCH is insignificant. However, we observe an interesting pattern for number of earners in a household. The main effect of NUMEARN turns below the significant threshold of 0.05, whereas the interaction term is significant at the 0.01 level. This supports the expectation that the social support factor number of earners in a household has a different influence in different countries. Conducting regression analyses on the samples of each single country allows us to examine such unique country-specific patterns (Table 9).

Table 9: Multiple linear regression on financial risk-taking willingness per country

		B	Std. Error	Beta (std.)	t	Sig.
AT	Constant	2.492	0.091		27.251	< 0.001
	NUMCH	-0.029	0.019	-0.034	-1.556	0.120
	NUMEARN	-0.018	0.015	-0.026	-1.189	0.235
	AGE	-0.011	0.001	-0.219	-10.284	< 0.001**
	SEX	-0.142	0.033	-0.091	-4.266	< 0.001**
	WEALTH	<0.001	<0.001	0.095	4.844	< 0.001**
IT	Constant	2.235	0.096		23.278	< 0.001
	NUMCH	0.009	0.021	0.009	0.414	0.679
	NUMEARN	0.048	0.018	0.063	2.735	0.006**
	AGE	-0.008	0.001	-0.158	-6.398	< 0.001**
	SEX	-0.164	0.029	-0.104	-5.672	< 0.001**
	WEALTH	<0.001	<0.001	0.124	6.731	< 0.001**
US	Constant	2.466	0.075		32.683	< 0.001
	NUMCH	-0.005	0.012	-0.007	-0.435	0.664
	NUMEARN	0.11	0.017	0.106	6.545	< 0.001**
	AGE	-0.003	0.001	-0.047	-2.865	< 0.001**
	SEX	-0.399	0.032	-0.191	-12.505	< 0.001**
	WEALTH	<0.001	<0.001	0.093	6.426	< 0.001**

Notes: dependent variable: RISK (risk-taking willingness, on an ordinal scale, from 1 (low financial risk-taking willingness) to 4 (high financial risk-taking willingness), as defined by Table 2); variables entered for each country (AT = Austria, IT = Italy, US = USA): NUMCH (number of children under 18), NUMEARN (number of economically active persons in household), AGE (age of household head), SEX (sex of household head), WEALTH (financial standing (wealth) calculated as TFA1 (total financial assets) - TD (total debt)); N(AT) = 2,556; N(IT) = 2,808; N(US) = 4,519; WEALTH's B and Std. Error are <0.001 because average and range of wealth variable values are relatively large compared to other variables; thus, the change for a unit change in wealth is comparably small; ** - significant at the 0.01 level.

Effects of the predictor variables on risk-taking willingness in each country are qualitatively similar to the across-countries regression. For all countries, the control variables AGE, SEX, and WEALTH significantly influence RISK in the same direction as described above. Likewise, for all three countries the predictor NUMCH becomes insignificant when adding the control variables.

However, there is one notable exception. For Austria, the number of earners (NUMEARN) is not significant, i.e., the number of earners in the household does not have a significant influence on risk-taking willingness. In other words, we do not find evidence of social

cushioning in Austria. This pattern seems to be the driving factor for the significant interaction term in Step 3 of Table 7.

Austria ranks highest in state cushioning, potentially eliminating the need for social cushioning. On the other hand, the USA and Italy, two countries with lower state cushioning, show evidence of social cushioning (NUMEARN). Thus, higher state cushioning may reduce social support influences on financial risk-taking willingness. In other words, if the state provides a strong support network, individual social support may be less important for driving risk-taking willingness. This is consistent with H3.

5. Discussion

Our analysis of panel data on willingness to take financial risks in three countries provides new insights into important factors that shape risk-taking willingness cross-nationally. Specifically, we extend research on social cushioning and provide insights into the link between social and state cushioning across nations.

Our findings extend research related to the mediating role of a personal support network on financial risk-taking willingness (Hsee and Weber 1999). We expand the scope of investigation of social network size in association with the cushion hypothesis beyond an Eastern-Western or collectivist-individualist comparison (China versus U.S.) (Hsee and Weber 1999) and beyond student samples (Hsee and Weber 1999, Mandel 2003). We compare countries with different levels of state cushioning and use a large-scale sample of household heads. A main effect of state cushioning on financial risk-taking willingness could not be evidenced as hypothesized. Americans possess a greater willingness to take financial risks than citizens of the European countries of Italy and Austria, despite a weaker state support net. However, the data indicates that there are more complex associations at play

shaping state cushioning influences on risk preferences. Indeed, we find evidence for an interaction effect of social and state cushioning, providing evidence for the expectation that higher state cushioning renders the influence of social cushioning on financial risk-taking willingness less important. This suggests that the welfare regime of a given state may shape the influence of social cushioning on risk-taking. This can be seen by the fact that Austria, the country with the most elaborate state welfare regime at the time of investigation is the only country for which we do not find evidence of social cushioning. In contrast, people from countries with lower state cushioning, such as Italy or the USA, count more on social support networks.

Our results furthermore contribute to the debate on the influence of a decision maker's distance to the money at stake on risky financial decision making. Trump et al. (2015) find that the closer the money at stake is to the self, the less the willingness to take financial risks. They consider their findings to be contradicting the cushion hypothesis because the cushion hypothesis predicts a personal support network to increase a decision maker's financial risk-taking willingness. However, prior research on the cushion hypothesis has not investigated the role of social support network closeness, but merely size. Thus, it is an open question how support network closeness would affect risk-taking in light of the cushion hypothesis.⁶ Our context adds an interesting dimension to the debate of closeness vs. distance to a related stakeholder. Our stakeholders are primarily fall-back options, i.e. support nets (as in Hsee and Weber 1999) and not financiers of money (as in Trump et al. 2015). Consequently, our study raises an interesting aspect in terms of distance to support nets, such that a state support net is more distant to the self than a personal social support net. While we do not have evidence that a distant but rather strong state support network leads to higher financial risk-taking willingness,

⁶ Additionally, the contradiction can be resolved by distinguishing the type of decisions made in the two studies. Hsee and Weber (1999) consider situations in which risky decisions are made with the decision maker's own money and examine whether a personal support network influences such decisions. Trump et al. (2015) include scenarios in which risky decisions are made with money from someone else, e.g. a close person.

we show that the magnitude of a rather distant network may reduce the influence of a rather close, personal support network, i.e. a moderating influence of the state support network. Future studies may investigate this interactive relationship between close and distant sources of support in further detail.

However, our social and state cushioning perspectives do not allow us to explain the observed higher financial risk-taking willingness of Americans in general. A perspective that provides an explanation is the cultural dimension of uncertainty avoidance (Hofstede 1980, 1984, 1991, 2001, 2010). The USA scores lower in uncertainty avoidance than Italy and Austria. Uncertainty avoidance has been associated with risk perceptions and business behavior (Bontempo et al. 1997, Ramirez and Tadesse 2009, Rieger et al. 2014). Thus, individuals in the USA may generally perceive risky situations as less threatening, resulting in higher risk-taking willingness. Despite all three countries being ‘Western’, there are still differences in their scores on the individualism-collectivism scale (Individualism score USA 91, Austria 55, Italy 76; Hofstede 2016). This constitutes another source of general differences in the willingness to take risk (Mihet 2013, Rieger et al. 2014). Nevertheless, in the USA we find evidence that social cushioning is associated with financial risk-taking willingness, such that the stronger the individual’s social support network, the higher the financial risk-taking willingness. These findings are in line with Hsee and Weber (1999) who showed a mediating role of social network size on risk-taking, as well as Mandel (2003) who found that priming the interdependent self compared to the independent individualistic self led to more risk-seeking behavior in financial decision making. It seems that social ties or social networks do have an influence on risk-taking in certain countries. More specifically, the more earners there are in a household, the more willing the household head is to take financial risks. The second predictor we used to approximate social cushioning, number of children under 18 in a household, did not consistently approximate social cushioning. We argued that number of

children can be seen as a valid proxy for social cushioning, as children constitute a ‘long-term’ support factor. Households with more children should have more access to financial support through their children once they are grown up compared to households with fewer or no children. Thus, we expected that these long-term considerations also influence current risk-taking willingness. The validity of this reasoning seems to be supported by the significance of the predictor NUMCH for all countries in Step 1 of the regression analysis (Table 7). In Step 2, when controlling for age, gender and wealth, NUMCH becomes insignificant for all three countries. Thus, number of children does not appear as a predictor independent from the control variables.

We also confirm previously reported results that wealth influences financial risk-taking willingness positively (Friend and Blume 1975), that older individuals are more risk averse than younger individuals (Dohmen et al. 2011), and that females are more risk averse than males (Croson and Gneezy 2009). We find that these relationships hold for all countries investigated, despite possessing different welfare regimes (USA, Austria and Italy). This suggests that the influence of these basic biological and demographic factors on willingness to take financial risk is fairly general, transcending national and possibly organizational characteristics. As such, from a management perspective, it can be expected that independent of characteristics of businesses or the cultural setting in which businesses operate, age, sex, and wealth are likely to be influential in determining an individuals’ risk behavior.

In an increasingly interconnected and diverse global society, our findings make a considerable contribution. In international contexts it is of great importance to understand risk preferences and how they shape human behavior and decision making. In the business world, managers of international teams or CEOs of multinational corporations need to understand and take into account differences among employees of various national backgrounds and need to implement policies and procedures accordingly (Chow et al. 1996). Likewise employees’ decisions and

business practices will be colored by their individual risk preferences. Understanding the background factors that contribute to varying risk perceptions and preferences is essential in successful operations assessment, strategizing, employee supervision and negotiating. In particular, knowledge of the influence of social and state environments on risk-taking may help managers to better consider employee preferences and build better risk controls.

6. Conclusion

Risk considerations shape human behavior in many contexts and across nations. How risky do I judge a specific situation to be? What is at stake for me? Who or what would help me if something goes wrong? It is understood that individuals who have access to financial support when needed may choose riskier options when facing a decision, or may simply perceive a given situation as less risky (Hsee and Weber 1999). Such financial support may stem from a person's social environment, such as immediate or extended family members, the state, in the form of government aid and welfare, or a person's own financial standing, such as the availability of personal funds. This study investigates the influence of these forms of financial support, i.e. social cushioning, state cushioning, and wealth, on financial risk-taking willingness across national boundaries. Consequently, the present study contributes to the unpacking of different factors that shape financial risk-taking willingness across countries.

It further allows us to better judge the interplay between a person's social environment, the state the person lives in, and his or her own economic standing, and how all these factors influence risk preferences. As such our study contributes to our understanding of human decision making and behavior across nations, helping for example to better predict risk preferences of negotiating parties with different national backgrounds. In general, understanding differences and similarities in risk perceptions and risk preferences across nations as well as the factors that shape them could help to improve cross-national decision

making processes and risk assessment which are crucial tasks for today's organizations and businesses.

7. Limitations and future research directions

Our study only tests social cushioning with two predictors. Future research may introduce additional proxies in order to gather more evidence for social cushioning. Additional predictors might include information on extended family networks apart from the mere number of earners in a household. Family network closeness to assess the degree of availability of financial help could constitute a further relevant predictor since socially close and strongly befriended networks potentially offer more help than loose and more distant networks. Such an investigation would further contribute to research on distance to money as discussed in the paper (Trump et al. 2015). Another potential predictor, which may influence the degree of risk-taking willingness, may be financial standing of social networks to gauge the amount of financial support that may be available for the person in need. Lastly, information on how many people one could turn to for financial help analogous to Hsee and Weber (1999) could be a fruitful predictor. Furthermore, while we include several control variables in our analysis, we cannot exclude the existence of further unobserved variables that may influence our observed interaction between state and social cushioning. Further studies might also combine the use of household data with laboratory experiments. While household surveys provide large and possibly more representative data sets, lab experiments allow the inclusion of specific questions under the experimenter's control to create specific decision contexts for gauging financial risk-taking willingness.

References

- Arts, W. and Gelissen, J. (2002), Three worlds of welfare capitalism or more? A state-of-the-art report, *Journal of European Social Policy*, 12(2), pp. 137–158.
- Blais, A.-R., and Weber, E. U. (2006), A Domain-Specific Risk-Taking (DOSPERT) Scale for Adult Populations, *Judgment and Decision Making*, 1(1), pp. 33-47.
- Bontempo, R.N., Bottom, W.P. and Weber, E.U. (1997), Cross-cultural differences in risk perception: A model-based approach, *Risk Analysis*, 17(4), pp. 479–488.
- Boubakri, N., Mansi, S. A., & Saffar, W. (2013), Political institutions, connectedness, and corporate risk-taking. *Journal of International Business Studies*, 44(3), pp. 195-215.
- Brown, C. L., Cavusgil, S. T., and Lord, A. W. (2015), Country-risk measurement and analysis: A new conceptualization and managerial tool, *International Business Review*, 24(4), pp. 246-265.
- Chatterjee, S. and Hadi, A.S. (2006), *Regression analysis by example, Wiley series in probability and statistics*, 4. ed., Wiley-Interscience, Hoboken.
- Chow, C.W., Kato, Y. and Merchant, K.A. (1996), The use of organizational controls and their effects on data manipulation and management myopia: A Japan vs U.S. comparison, *Accounting, Organizations and Society*, 21 (2-3), pp. 175–192.
- Chow, C. W., Shields, M. D., & Wu, A. (1999), The importance of national culture in the design of and preference for management controls for multi-national operations, *Accounting, Organizations and Society*, 24(5), 441-461.
- Croson, R. and Gneezy, U. (2009), Gender Differences in Preferences, *Journal of Economic Literature*, 47(2), pp. 448–474.
- Delerue, H., and Simon, E. (2009), National cultural values and the perceived relational risks in biotechnology alliance relationships, *International Business Review*, 18(1), 14-25.

- Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J. and Wagner, G. (2011), Individual Risk Attitudes: Measurement, Determinants, And Behavioral Consequences, *Journal of the European Economic Association*, 9(3), pp. 522–550.
- Esping-Andersen, G. (1990), *The Three Worlds of Welfare Capitalism*, Oxford 1990.
- Friend, I. and Blume, M.E. (1975), The Demand for Risky Assets, *American Economic Review*, 65, pp. 900-922.
- Gao, J., Enkavi, A.Z., Weber, E.U., Qian, J., Li, Y., & Johnson, E. J. (2014), Domain-specific risk-taking across the lifespan: Age differences in DOSPERT predict differences in real-world behavior, In preparation, *Psychology & Aging*.
- Gray, S. J., Kang, T, Yoo, Y. K. (2013), National Culture and International Differences in the Cost of Equity Capital, *Management International Review*, 53, pp. 899–916.
- Guiso, L., Sapienza, P., & Zingales, L. (2009). Cultural biases in economic exchange, *The Quarterly Journal of Economics*, 124(3), pp. 1095–1131.
- Hofstede, G. (1980), *Culture's consequences: International differences in work-related values*, Sage, Beverly Hills.
- Hofstede, G. (1984), *Culture's consequences: International differences in work-related values*, Sage, Beverly Hills.
- Hofstede, G. (1991), *Cultures and Organizations Software of the Mind*, McGraw-Hill, London.
- Hofstede, G. H. (2001), *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*, Sage. Beverly Hills.
- Hofstede, G. H.; Hofstede, G. J., & Minkov, M. (2010), *Cultures and organizations. Software of the mind: intercultural cooperation and its importance for survival*. 3. Vol. New York, NY: McGraw-Hill.
- Hofstede, G. H. (2016), <http://geert-hofstede.com/national-culture.html>. Accessed 15.03.2016.
- Hsee, C.K. and Weber, E.U. (1999), Cross-National Differences in Risk Preference and Lay Predictions, *Journal of Behavioral Decision Making*, 12, pp. 165–179.

- Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006), A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework, *Journal of International Business Studies*, 37(3), pp. 285-320.
- Liu, L. A., and Dale, C. (2009), Using Mental Models to Study Cross-Cultural Interactions. Ch. 11, pp. 222-244. In: Nakata, C. (Ed.). *Beyond Hofstede – Culture Frameworks for Global Marketing and Management*. Palgrave Macmillan.
- Luxembourg Wealth Study Database (2013), <http://www.lisdatacenter.org> (Austria, Italy, USA; first accessed 31.03.2013), Luxembourg, LIS.
- Mandel, N. (2003), Shifting selves and decision making: The effects of self-construal priming on consumer risk-taking, *Journal of Consumer Research*, 30(1), pp. 30-40.
- Meschi, P. X., and Riccio, E. L. (2008), Country risk, national cultural differences between partners and survival of international joint ventures in Brazil, *International Business Review*, 17(3), 250-266.
- Mihet, R. (2013). Effects of culture on firm risk-taking: a cross-country and cross-industry analysis, *Journal of Cultural Economics*, 37(1), 109-151.
- OECD - Organization for Economic Co-operation and Development. (2016), OECD Social Expenditure database, Aggregated Data, https://stats.oecd.org/Index.aspx?DataSetCode=SOCX_AGG, Accessed 22.02.2016
- OECD - Organization for Economic Co-operation and Development. (2005), PPPs and Real Expenditures 2002, Paris.
- Owen, A. L., and Temesvary, J. (2015), Country Characteristics in Foreign Bank Investments and Risk Taking: The Role of Shared Culture, Common Institutions and Geographic Proximity, *International Finance*, 18(2), pp. 227-248.
- Pfau-Effinger, B. (2005), Culture and welfare state policies: reflections on a complex interrelation, *Journal of Social Policy*, 34(1), 3-20.
- Ramirez, A., and Tadesse, S. (2009), Corporate cash holdings, uncertainty avoidance, and the multinationality of firms, *International Business Review*, 18(4), 387-403.

- Rieger, M.O., Wang, M. and Hens, T. (2014), Risk Preferences Around the World, *Management Science*, Articles in Advance, pp. 1-12.
- Salter, S. B., Sharp, D. J., & Chen, Y. (2013), The moderating effects of national culture on escalation of commitment, *Advances in Accounting*, 29(1), 161-169.
- Schulz, Axel K.-D; Salter, Stephen B.; Lopez, Juan Claudio and Lewis, Philip A. (2009), Reevaluating Face: A Note on Differences in Private Information Sharing Between Two Communitarian Societies, *Journal of International Accounting Research*, Vol. 8 No. 1, pp. 57–65.
- Triandis, H.C. (1983), The Self and Social Behavior in Differing Cultural Contexts, *Psychological Review*, 96(3), pp. 506–520.
- Trump, R. K., Finkelstein, S. R., & Connell, P. M. (2015), I will risk a stranger’s money, but not my own or my friend’s money: Effect of proximity of the money source to the self on financial risk-taking, *Marketing Letters*, 26(4), pp. 501-512.
- Tse, D.K.; Lee, K.-H.; Vertinsky, I. and Wehrung, D.A. (1988), Does Culture Matter? A Cross-Cultural Study of Executives' Choice, Decisiveness, and Risk Adjustment in International Marketing, *The Journal of Marketing*, 52, pp. 87–95.
- Tylor, R.B. (1871), *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art, and Custom*, (two volumes, volume 1), Murray, London.
- Weber, E.U. and Hsee, C. (1998), “Cross-cultural Differences in Risk Perception, but Cross-cultural Similarities in Attitudes Towards Perceived Risk”, *Management Science*, 44 (9), pp. 1205–1217.
- Weber, E.U., Hsee, C.K. and Sokolowska, J. (1998), What folklore tells us about risk and risk taking: Cross-cultural comparisons of American, German, and Chinese proverbs, *Organizational Behavior and Human Decision Processes*, 75(2), pp. 170–186.
- Weber, E.U., Blais, A.-R., & Betz, N. E. (2002), A domain-specific risk-attitude scale: measuring risk perceptions and risk behaviours, *Journal of Behavioral Decision Making*, 15(4), pp. 263–290.
- Weber, M., Weber, E.U. and Nasic, A. (2013), Who takes Risks When and Why: Determinants of Changes in Investor Risk Taking, *Review of Finance*, 17(3), pp. 847–883.