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Financial Literacy, Information Sources, and Interest in Financial News

An empirical study for Austria

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Research Context

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External conditions

Scope and complexity of financial products have increased in the last decades → households struggle to save money effectively

Demographic changes in Austria present a challenge for the current pension system → responsibility for the pension provision is being shifted from governmental institution to individuals

Implications

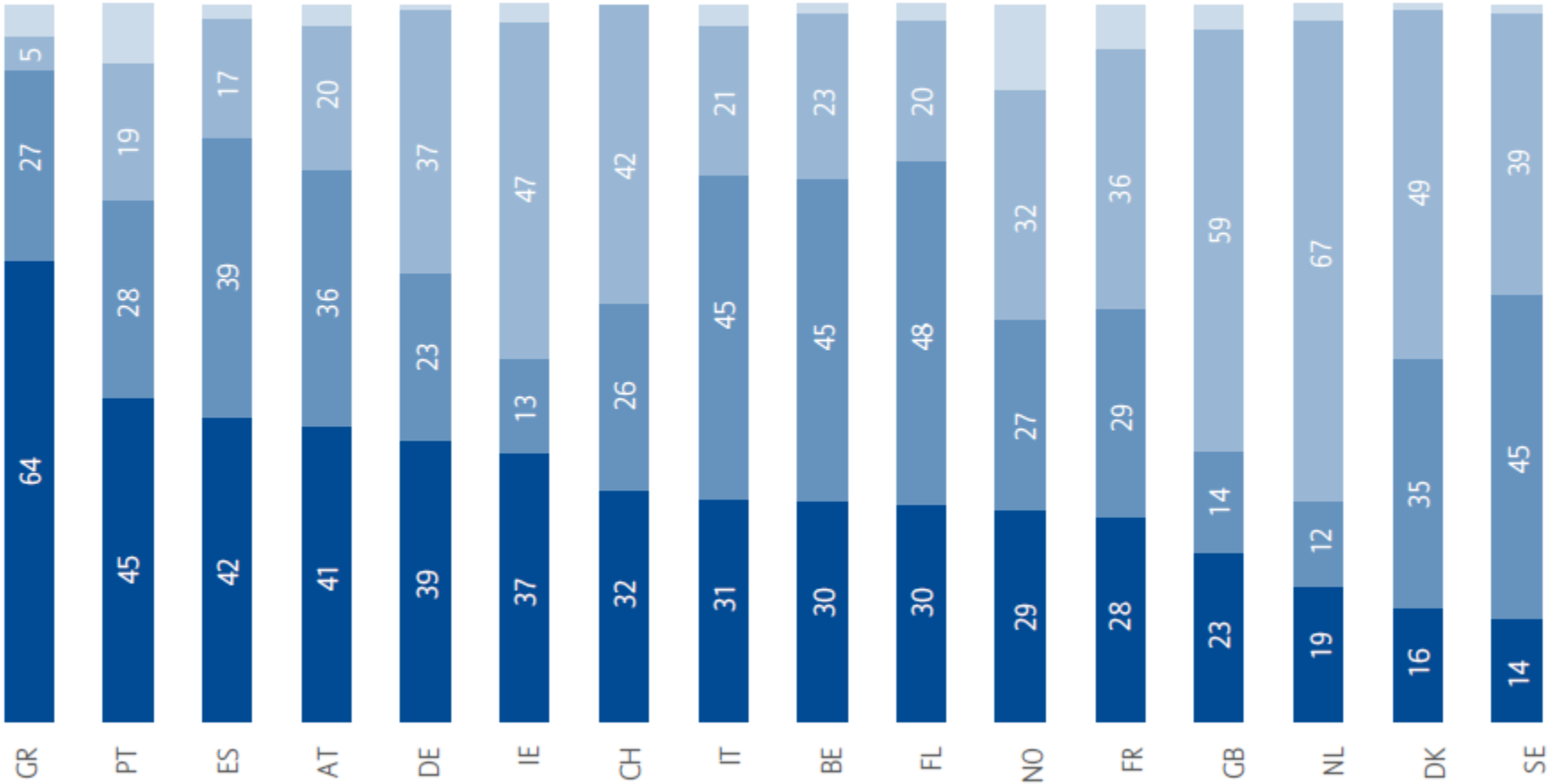
Assessing the relevance and processing of financial information requires **financial literacy**

Financial decisions require collecting and processing of a lot of **financial information**

Pension planning and investments require more sophisticated **financial decisions**

Differing preferences in country comparison

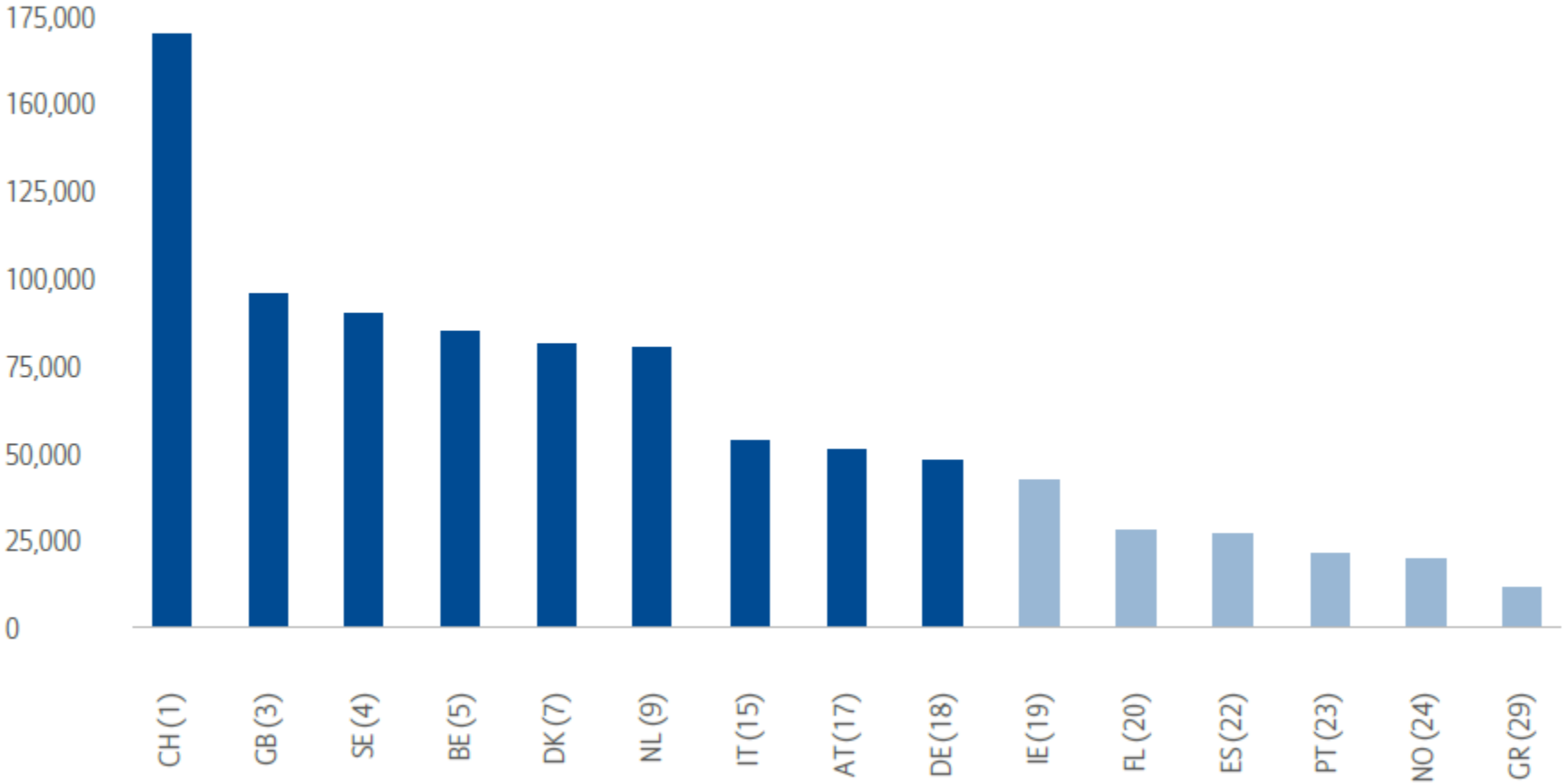
Asset classes as % of gross financial assets, 2015



Sources: National Central Banks and Statistical Offices, Allianz SE.

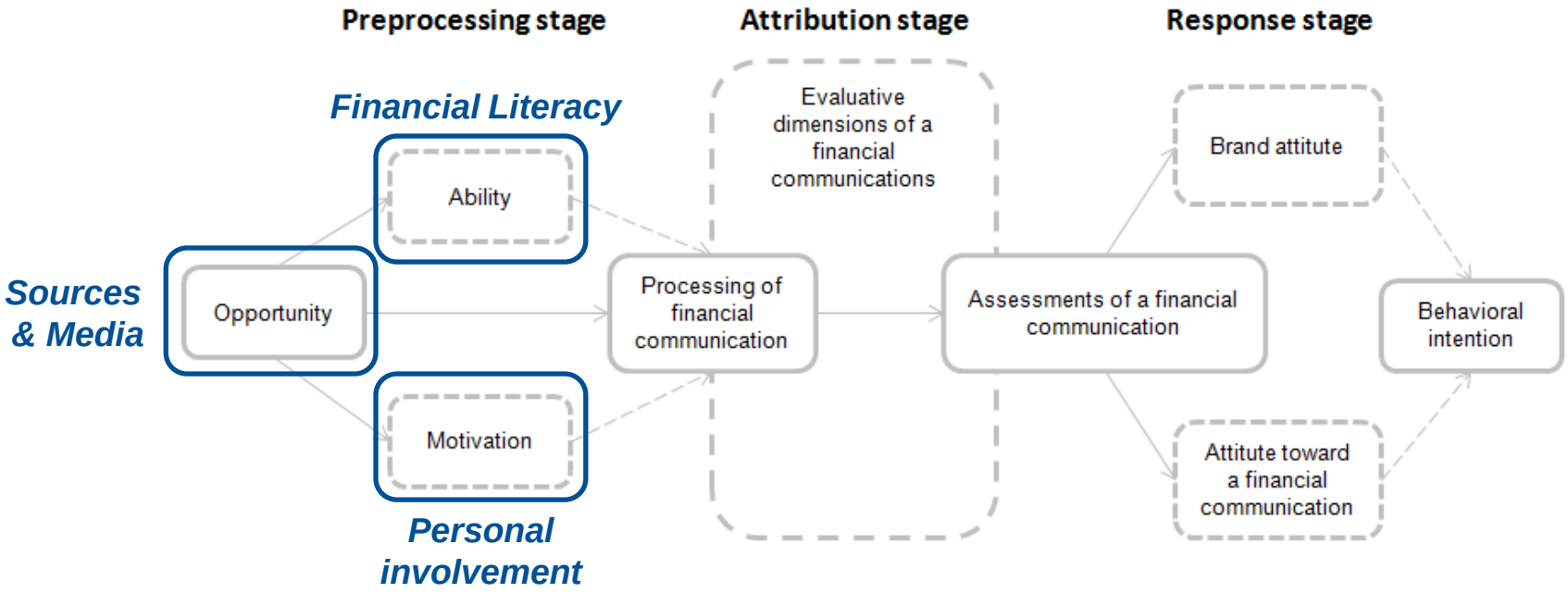
Ranking: Western Europe

by net financial assets per capita 2015, in EUR



Figures in brackets: Global Ranking.
Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE.

Conceptual Model of Finanancial Communications



Reference: Wang, 2013, p. 3

Processing stage as focus of our research | Research Questions

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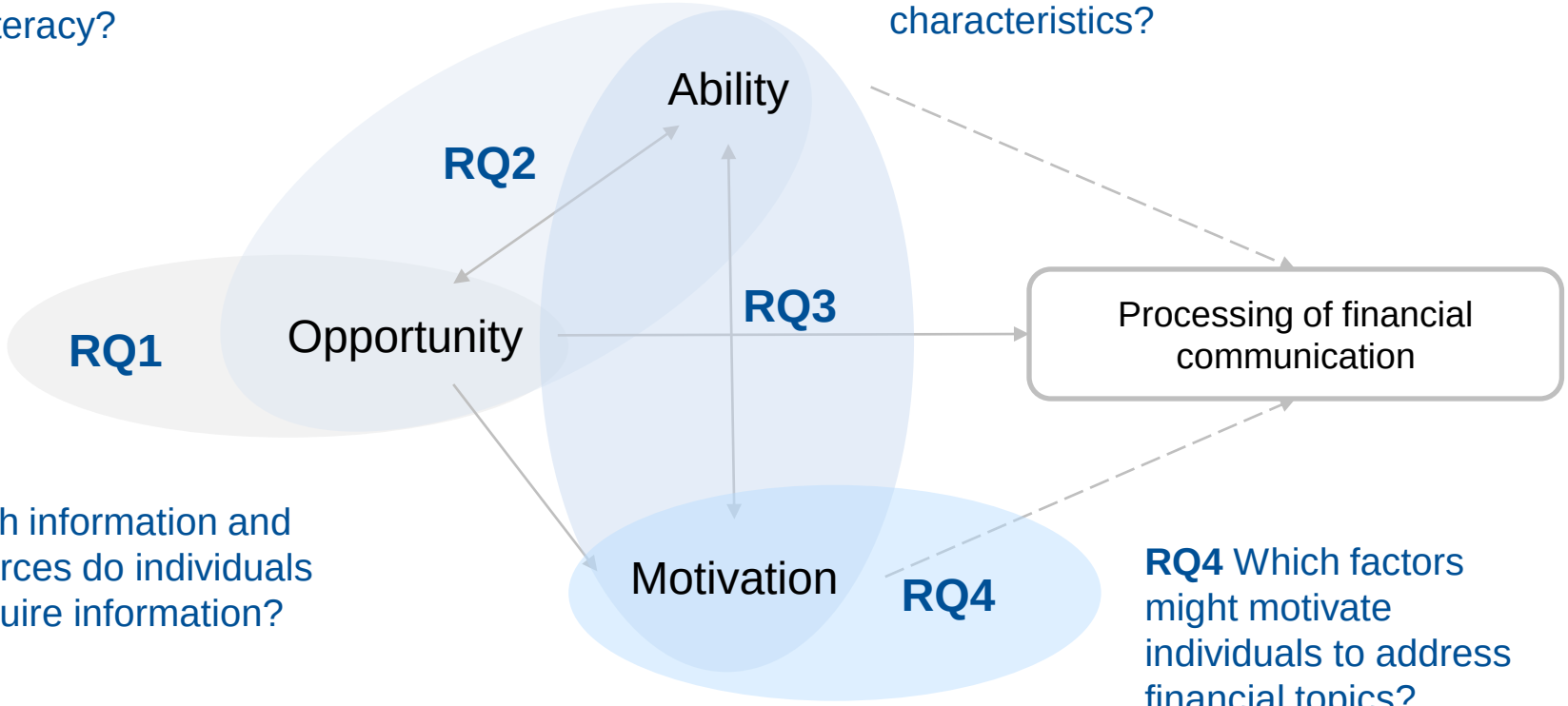
RQ2 To what extend do the preference or the rejection of specific information and media sources correlate with the level of financial literacy?

RQ3 To what extend can the interest in financial news be explained by the level of financial literacy by controlling for financial practices, risk tolerance, and socio-demographic characteristics?



RQ1 Which information and media sources do individuals use to acquire information?

RQ4 Which factors might motivate individuals to address financial topics?

Research Questions

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RQ1 Which information and media sources do individuals in Austria use to acquire financial information?

RQ2 To what extend do the preference or the rejection of specific information and media sources correlate with the level of financial literacy among the Austrian population?

RQ3 How interesting is financial news for private investors in Austria? To what extend can the interest in financial news be explained by the level of self-assessed and factual financial literacy by controlling for financial practices, risk tolerance, and socio-demographic characteristics?

RQ4 Which factors might motivate individuals in Austria to address financial topics?

Definition of Financial Literacy

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"Financial literacy is the **knowledge** and **understanding** of financial concepts and risks, and the skills, motivation, and confidence to **apply** such knowledge and understanding in order to **make effective decisions** across a range of financial contexts to **improve the financial well-being** of individuals and society, and to enable participation in economic life" (OECD, 2013, p. 33)

Structure of financial knowledge

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Internal Factors

Perception
Learning
Memory
Personality
Others

External Factors

Culture
Demographics
Reference Groups
Education
Others

Financial knowledge

Subjective knowledge

Objective knowledge

Experience & familiarity

Financial Literacy

Financial Behavior

Information search

Attitude

Intension

Decision

Reference: Wang, 2013, p. 22

Research work on information behaviour and FinLit

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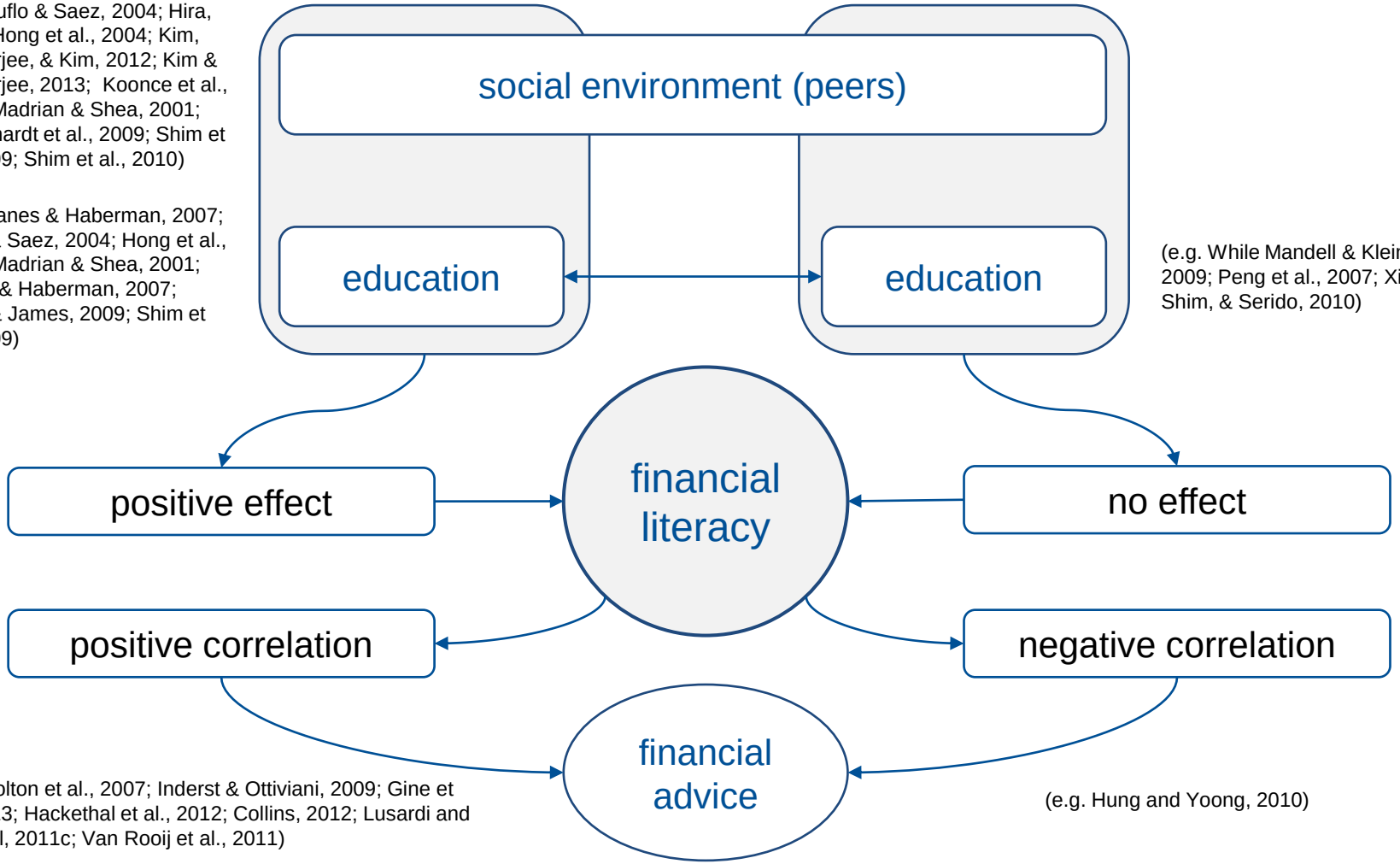
(e.g. Duflo & Saez, 2004; Hira, 1997; Hong et al., 2004; Kim, Chatterjee, & Kim, 2012; Kim & Chatterjee, 2013; Koonce et al., 2008; Madrian & Shea, 2001; Schuchardt et al., 2009; Shim et al., 2009; Shim et al., 2010)

(e.g. Danes & Haberman, 2007; Duflo & Saez, 2004; Hong et al., 2004; Madrian & Shea, 2001; Danes & Haberman, 2007; Robb & James, 2009; Shim et al., 2009)



(e.g. While Mandell & Klein, 2009; Peng et al., 2007; Xiao, Shim, & Serido, 2010)

(e.g. Bolton et al., 2007; Inderst & Ottiviani, 2009; Gine et al., 2013; Hackethal et al., 2012; Collins, 2012; Lusardi and Mitchell, 2011c; Van Rooij et al., 2011)

(e.g. Hung and Yoong, 2010)

Relevant studies on informal information sources

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- Social environment and education have a positive effect on financial literacy and thus, subsequently, on the financial behavior (e.g. Hira, 1997; Kim, Chatterjee, & Kim, 2012; Koonce et al., 2008; Schuchardt et al., 2009; Shim et al., 2009; Shim et al., 2010)
- Young adults who grew up in a social environment that was supportive towards financial awareness and knowledge were more likely to demonstrate an effective financial behavior (Kim & Chatterjee, 2013)
- Also among older individuals the peer group (family, friends, and colleagues) has a positive impact on the financial behavior, whereas different groups exert influence on specific issues (Duflo & Saez, 2004; Hong et al., 2004; Madrian & Shea, 2001)

Relevant studies on formal information sources

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- College financial courses are not effective (While Mandell & Klein, 2009; Peng et al., 2007; Xiao, Shim, & Serido, 2010)
- High school students who participated in financial courses have better financial knowledge (Duflo & Saez, 2004; Hong et al., 2004; Madrian & Shea, 2001; Danes & Haberman, 2007; Robb & James, 2009; Shim et al., 2009) whereas female participants benefit more from the courses than their male counterparts (Danes & Haberman, 2007)
- Financial advice is not strongly demanded in the general population (Bhattacharya et al., 2012; Lusardi, 2008)
- More knowledgeable persons are more likely to consult financial advisors (Bolton et al., 2007; Inderst & Ottiviani, 2009; Gine et al., 2013; Hackethal et al., 2012; Collins, 2012; Lusardi and Mitchell, 2011c; Van Rooij et al., 2011)
- The least financially literate individuals seek rather for financial advice than their more literate counterparts (Hung and Yoong, 2010)

Methodology of the Survey

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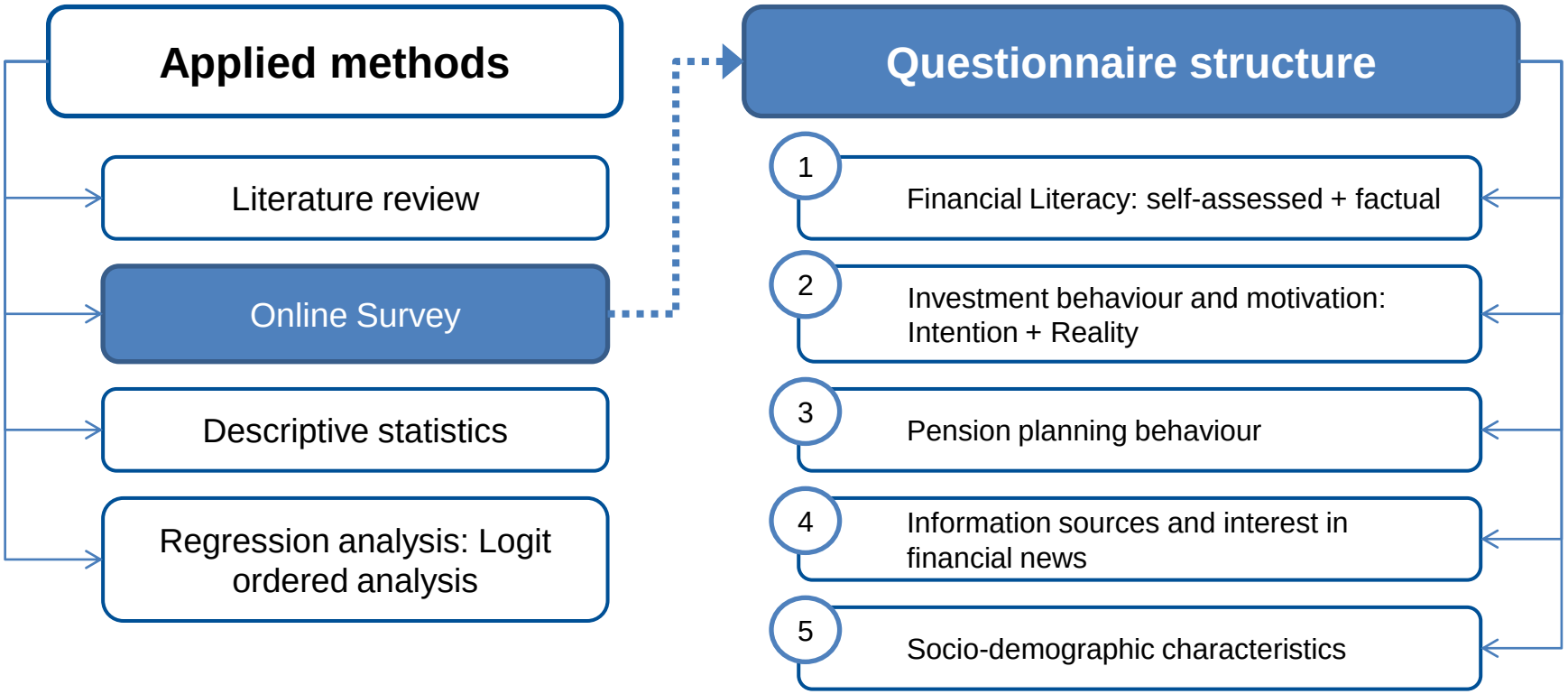

Sample Structure

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- Online questionnaire sent out to the working population (15 to 64 years) in Austria from Feb 9 to March 20 2016
- Random sampling via social media and email
- 336 responses in total

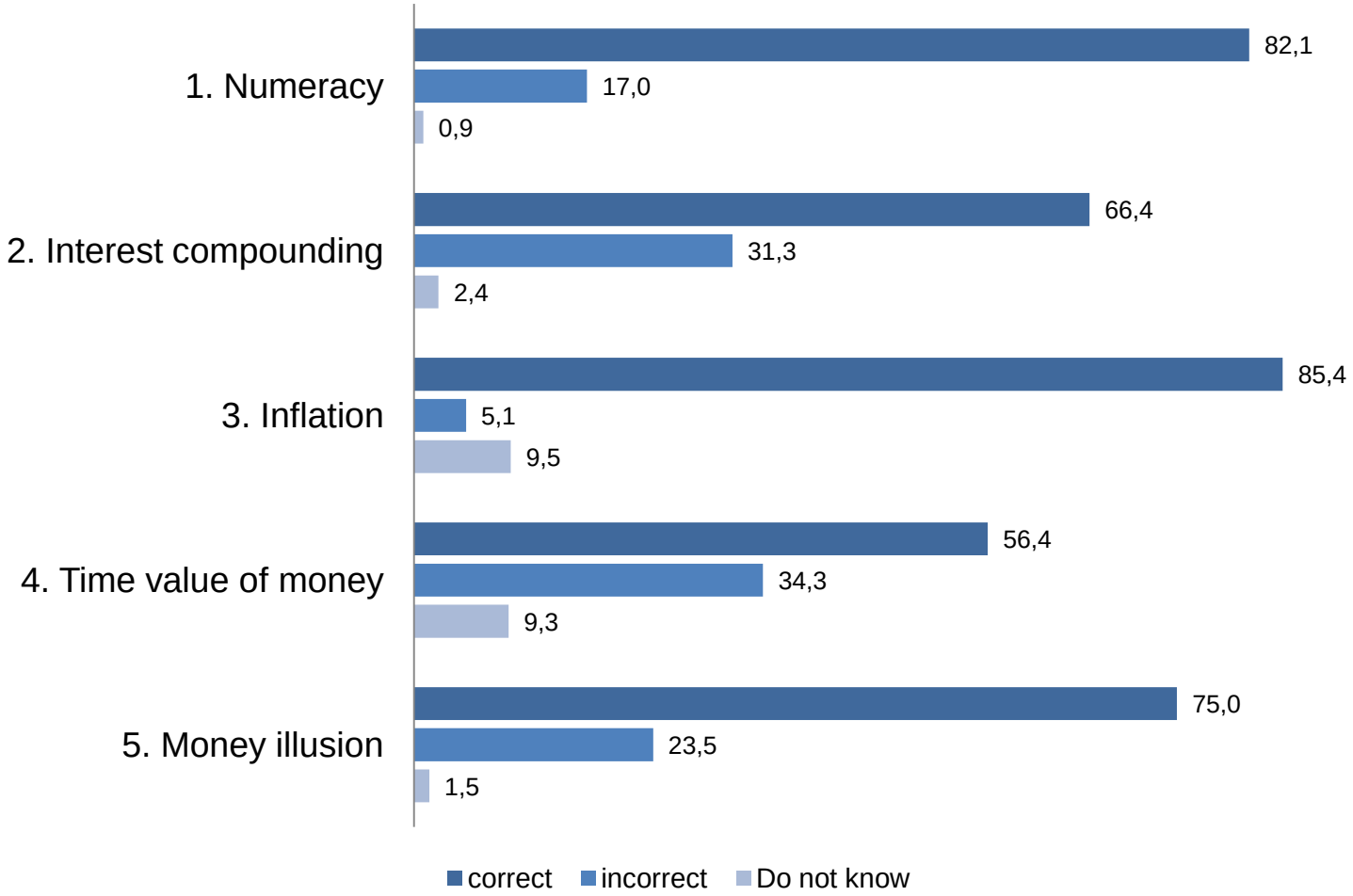
Outline criteria	survey sample n	survey sample (%)	population[6] (%)
1. Sex			
1a. male	149	(44.35)	(48.49)
1b. female	187	(55.65)	(51.51)
2. Age			
2a. 18 – 39 years	209	(62.20)	(46.93)
2b. 40 – 64 years	127	(37.80)	(53.07)
3. Professional Activity			
3a. full-time	194	(57.74)	(67.64)
3b. part-time*	75	(22.32)	(26.63)
3d. unemployed**	67	(19.94)	(5.72)
4. Employment Relationship			
4a. employed	220	(65.48)	(82.02)
4b. self-employed***	57	(16.96)	(12.25)
4d. unemployed	59	(17.56)	(5.72)
5. Working in the Finance Sector			
5a. yes	31	(9.23)	(3.24)
5b. no	305	(90.77)	(96.76)
6. Education			
6a. without University degree	158	(47.02)	(75.24)
6b. University degree	178	(52.98)	(24.76)
7. Income			
7a. less than 3,001 EUR/CHF	266	(79.17)	(86.17)
7b. 3,001 - 6,000 EUR/CHF	33	(9.82)	(12.51)
7c. 6,001 - 9,000 EUR/CHF	2	(0.60)	(1.32)
7d. more than 9,000 EUR/CHF	4	(1.19)	(0.00)
7e. refused	31	(9.23)	(0.00)

*including marginally employed persons
**including unemployed students
***including employed and self-employed

[1] (Statistik Austria, 2014, 2015)

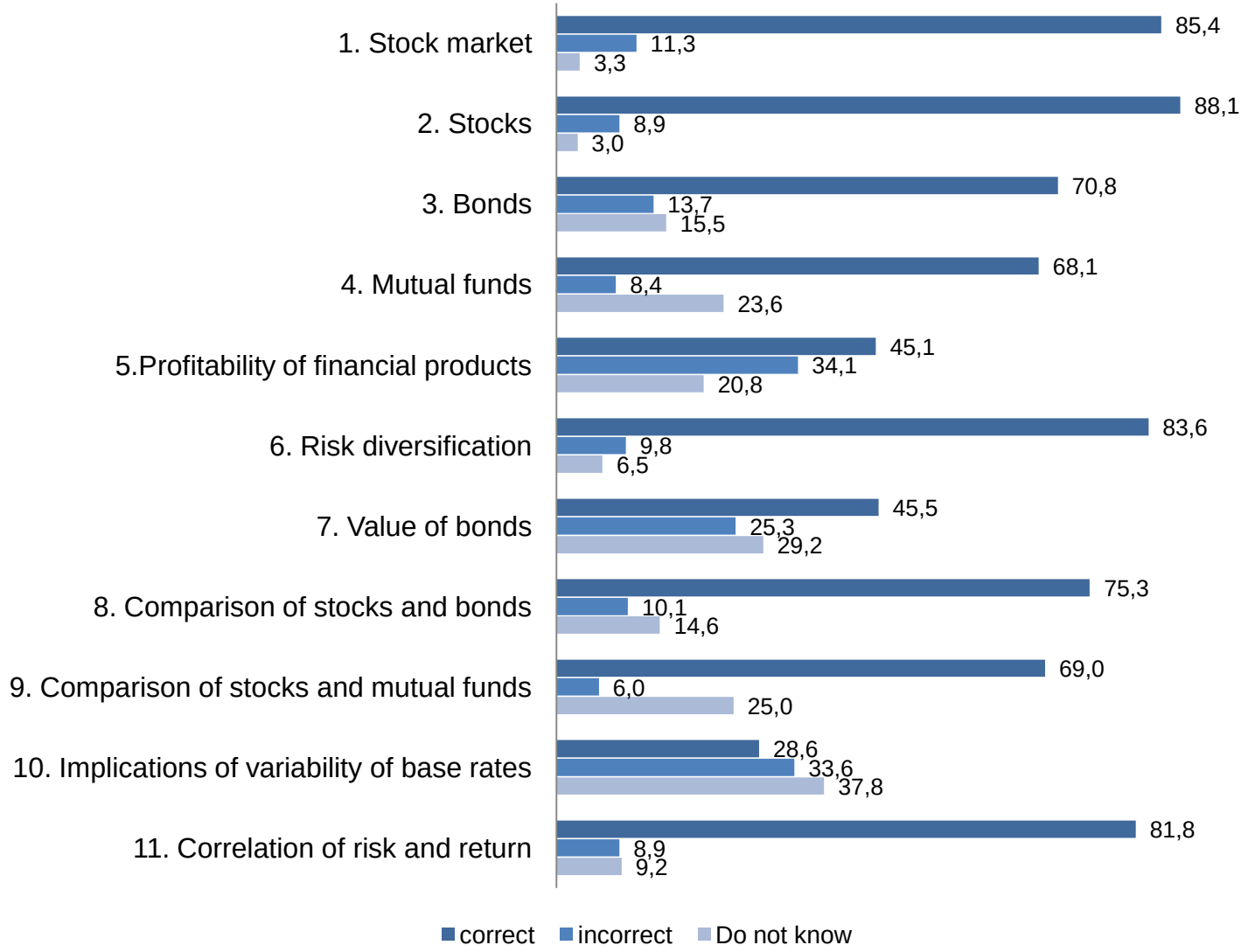
Basic Financial Literacy

n=336, in %



Advanced Financial Literacy

n=336, in %



Relevance of Information Sources in % (RQ1), n=336

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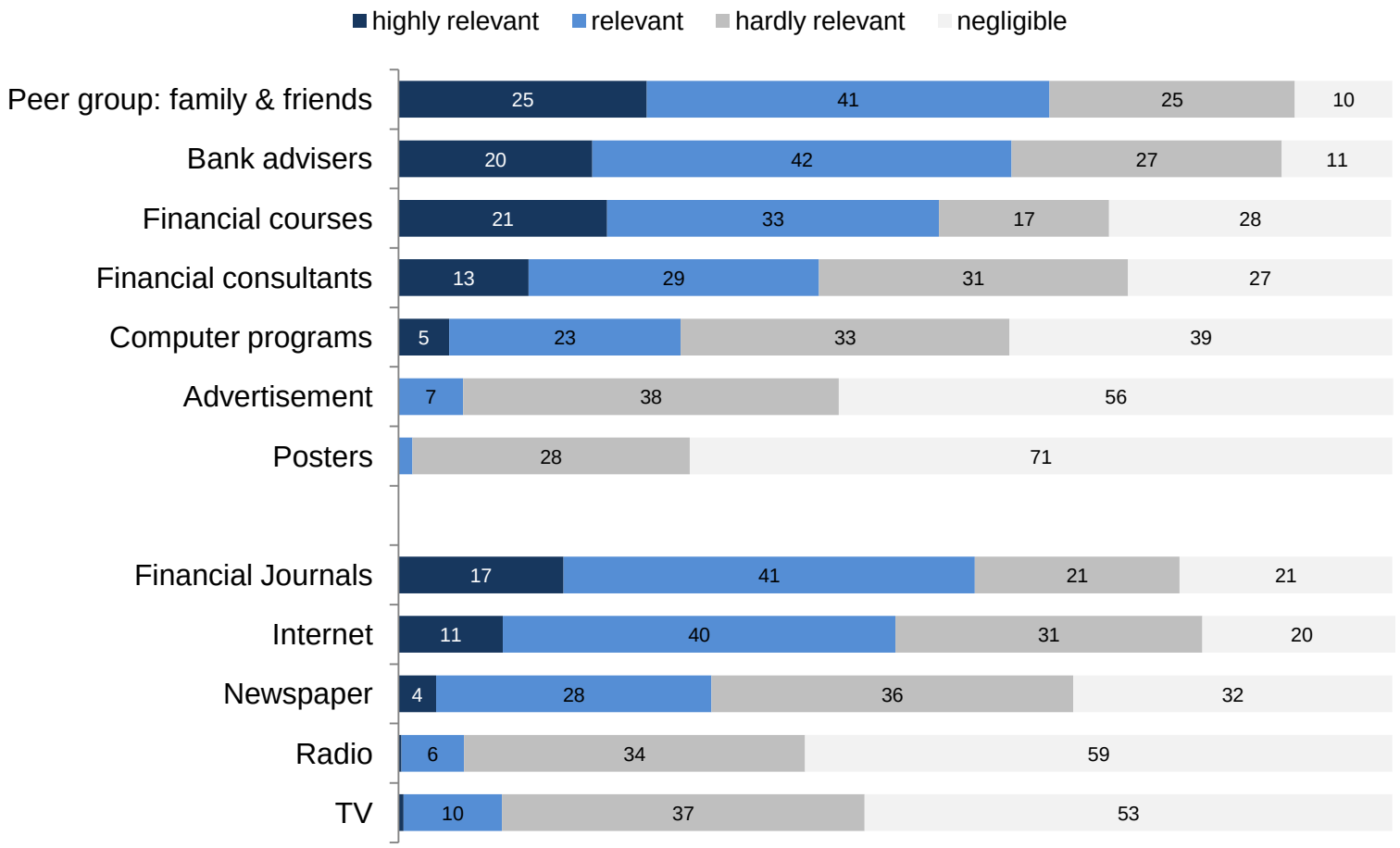

Relationship between financial literacy and information sources (RQ2)

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	n = 336	
	Factual financial literacy	Self-assessed financial literacy
Peer groups	**-0.187****	**-0.239****
Financial advisors	**-0.129***	-0.094
Bank	**-0.116***	-0.100
Internet	**-0.165****	**0.235****
Financial Ads	0.073	0.094
Newspaper	**-0.193****	**0.214****
Financial magazines	**-0.159****	**0.224****
TV	-0.047	0.032
Radio	-0.073	-0.037
Out of home	-0.011	0.036
Computer programs	0.050	0.107
Financial courses	-0.036	0.064

This table reports correlations between factual and self-assessed financial literacy and the relevance of information sources and media channels in Austria. Significant correlations are in bold and marked with ** and * at the 1% and 5% respectively. Note that the factual financial literacy is based on the number of correctly answered questions (min = 0, max = 16), whereas the relevance of information and media sources is described with 1 = relevant and 0 = irrelevant based on a four-point-Likert scale originally. Missing values are due to no indications by respondents.

Interest in financial news - ordered logit model (RQ3)

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(1) self-assessed FL and (2) factual FL

interest in financial news

stock markets, bonds, real estates, gold, savings accounts

$$Pr(y_i^*) = \alpha_0 + \alpha_1 financial\ literacy_i + \alpha_2 pension\ planning_i + \alpha_3 investments_i + \alpha_4 gender_i + \alpha_5 age_i + \alpha_6 risk\ aversion_i + \alpha_7 education_i + \alpha_8 workforce_i + \alpha_9 employment_i + \alpha_{10} work\ in\ financial\ services_i + \alpha_{11} income_i + \varepsilon_i$$

Regression analysis on the interest in financial news (RQ3)

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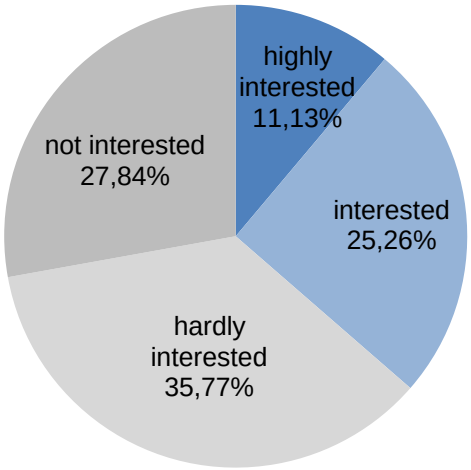
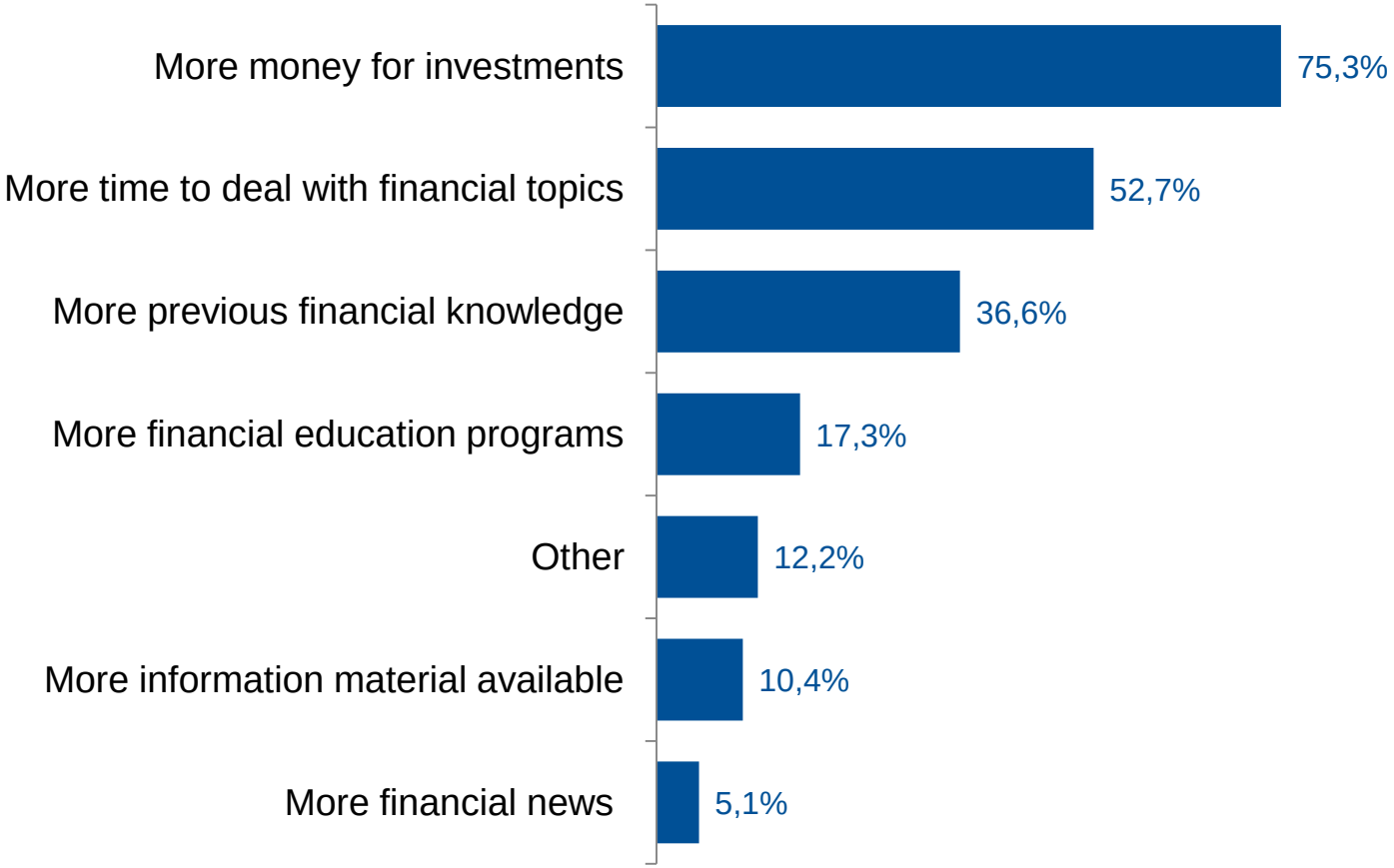
Dependent variable:	**(n = 336)**	
Interest in financial news	(1)	(2)
Index of self-assessed FL	**0.526*** **	
Index of factual FL		**0.224*** **
Pension planning indicator	-0.063	-0.026
Dummy: invested in stock market	**1.225*** **	**1.110*** **
Dummy: invested in bonds	-0.024	0.187
Dummy: invested in real estates	0.268	0.247
Dummy: invested in gold	**0.481***	0.463*
Dummy: invested in savings accounts	0.487	0.423
Dummy: female	**-0.542*** **	**-0.607*** **
Age	**-0.307*** **	**-0.255*** **
Age squared	**0.004*** **	**0.003*** **
Dummy: Risk taker	**0.636****	**0.760*** **
Dummy: University education	0.157	0.046
Dummy: In workforce	0.123	-0.107
Dummy: Self-employed	0.245	0.356
Dummy: Work in financial services	**0.955****	**1.383*** **
Dummy: Income <3000	-0.208	-0.478
Dummy: Income3000<Income≤6000	-0.352	-0.605
Dummy: 6000<Income≤9000	0.259	0.355
Dummy: Income>9000	1.198	0.557
Pseudo-R^2 (Nagelkerke)	0.475	0.424

This table reports results from ordered logit regressions of the effects of self-assessed financial literacy, real financial literacy, pension planning, investments, risk behavior, and demographic factors on the interest in financial news. For the notation of the variables see Table 3. Robust standard errors in parentheses. Coefficients significant at the 1%, 5%, and 10% level in bold and marked with ***, **, and * respectively.



Motivation to deal with financial news (RQ4)



Results in a nutshell

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- **Social environment and formal sources**
  - Financial behavior is strongly determined by peer groups
  - Banks play a pivotal role for private investors when searching information
  - The lower the level of financial literacy, the higher the importance of the social environment and financial advisors → ***substitutionality approach***
  - Financial magazines, newspapers, and the internet are preferred by people with high level of self-assessed financial literacy, however, not by people with high level of factual financial literacy → ***indicator of overestimation of the own financial literacy***
  - Commercials seems to be of no importance for private investors
- **Use of media**
  - Financial magazines and the Internet are considered important sources
  - TV and radio, in contrast, are negligible from the privat investors‘ perspective

Results in a nutshell

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- **Interest in financial news**
  - The interest in financial news increases with higher level of both self-assessed and factual financial literacy
  - The interest in financial news can be further explained by higher risk tolerance, stock market participation and investment in gold
  - Work in financial services has also a positive impact on the interest news
  - Younger people and male investors seem to be more interested in financial news than their older or female counterparts
- **Motivating factors for addressing financial topics**
  - Respondents indicate *money* and *time* as important factors when dealing with financial issues
  - More previous knowledge and financial education are also demonstrated supportive factors for higher interest in financial topics

Conclusion and implications

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- **Financial audiences** show a high level of **heterogeneity** with respect to financial literacy level, risk behavior, investment and pension planning behavior as well as to the interest in financial news which can be explained by our research. Financial communicators should take these differences into account to improve the effectiveness of the financial communications.
- **Financial education** bears the potential for **improving financial literacy and interest** in financial topics relevant for the individuals‘ wellbeing. Research insights thus should be taken seriously by governmental institutions and be supported at various levels, e.g. by providing financial education at schools but also for adults.
- Our results show limitations with regard to the sample and methodology due to the complexity of the topic (e.g. endogeneity). These issues must be necessarily addressed by upcoming research. Further more, additional topics such as reasons for the preference of specific information sources etc. should be examined.
- Despite its social relevance, **research on** financial literacy, and particularly **financial communications**, is at an early stage and strongly expandable.

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