Financial capability, money attitudes and socioeconomic status: risks for experiencing adverse financial events

Journal Item

Financial Capability, Money Attitudes and Socioeconomic Status: Risks for Experiencing Adverse Financial Outcomes

Abstract

The risk of experiencing adverse financial events (e.g. bankruptcy) depends on the world economy *and* on individual differences in financial and psychological variables. Analysing data from 109,472 British survey respondents, this study reports the risks associated with financial capabilities, money attitudes, and socio-economic status for suffering negative financial outcomes. The results show that (1) socio-economic status is associated with financial capabilities but not with money attitudes; (2) money attitudes and financial capabilities are largely independent; (3) money attitudes and financial capabilities each contribute independently to the risk of experiencing adverse financial outcomes, even after adjusting for socio-economic status; and (4) financial capabilities are greater risk factors of adverse financial outcomes than money attitudes; the latter, however, are likely to be promising targets for interventions.

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In Great Britain, like in most of the Western world, a record number of people experience currently adverse financial events, including bankruptcy, repossessions of goods, and difficulties in meeting mortgage and credit repayments. While it is undisputed that these are partly related to the global economic crisis, financial experiences are also influenced by individual differences in psychological and socio-economic factors. To understand why some people suffer poor financial outcomes and others do not, individual differences in financial capabilities and attitudes towards money must be considered, as well as the financial circumstances that people create and then operate in.

Financial Capability

Largely ignored by psychologists, economists have developed the concept of financial capability that "reflects people's knowledge of financial matters, their ability to manage their money and to take control of their finances" (Taylor, 2011, p. 298). Financial capability entails the ability to manage living on the resources available, and to make appropriate financial decisions (HM Treasury, 2007). Based on extensive surveys (Financial Services Authority; Atkinson, McKay, Kempson, & Collard 2006; HM Treasury, 2007), four core domains of financial capability were identified, including 'making ends meet' (adequate management of available financial resources); 'keeping track' (monitoring of one's personal financial status); 'planning ahead' (financial precautions taken for the immediate future); and 'staying informed' (engagement with current economic developments)[1]. Financial capabilities inform a narrow ability factor, which refers to copping with one's financial environment and has received little empirical investigation to date (cf. Atkinson et al. 2006; Taylor, 2011).

Money Attitudes

[1] Atkinson and colleagues (2006) also include 'buying products' (making informed choices about purchases).

In principle, attitudes refer to a person's feelings, opinions, and general approach towards a person or object (cf. Funder, 2001). By contrast to personality, attitudes are often influenced by situational and circumstantial factors and hence, they are believed to be less stable than personality traits (cf. Armstrong, Su, & Rounds, 2011). To describe individual differences in the motivation for obtaining and spending money, four money attitudes have been differentiated in prior research (Furnham, Wilson, & Telford, 2012; Goldberg & Lewis, 1978; Yamauchi & Templer, 1982; Tang, 1995; cf. Furnham & Argyle, 1998). First, money may be perceived as a security blanket, leading to hoarding and compulsive saving behaviours. Second, money may represent power, status and control; here, money leads to social recognition and acceptance because it buys status symbols. Third, money can be associated with the expression of love or generosity, including the buying *and* the selling of emotional closeness and affection. Finally, money may mean autonomy or freedom that allows people escaping from their daily routines (e.g. weekend getaway) and circumventing life's dullest obligations (cf. Furnham & Argyle, 1998). Some empirical studies reported that money attitudes are independent of income (e.g. Yamauchi & Templer, 1982), while others find significant associations with income, employment status, and education (e.g. Roberts & Sepulveda, 1999). So far, the relationship of money attitudes, financial capability and negative financial experiences has not been studied.

Socio-economic Context

To understand risk factors of negative financial experiences, socio-economic circumstances, such as income level and educational qualifications, must be considered (Atkinson et al. 2006). Indeed, it is often society's poorest who are at greatest risk of adverse financial events because, having the least financial buffers, they are most vulnerable to the consequences of economic downturns (cf. Pollack & Lynch, 2009). For example in Great Britain, house repossessions occur most often in the areas with the lowest rates of

employment and below average income levels (Atkinson et al. 2006). Similarly in the United States, people of low socio-economic status experience the most frequent house foreclosures (Allen, 2011; Pollack & Lynch, 2009). It follows that the likelihood of experiencing negative financial outcomes may be largely explained by socio-economic differences, and to a comparatively smaller extent by individual differences in psychological factors (i.e. capability and attitudes). Conversely, it is difficult to specify the effects of socio-economic factors for adverse financial experiences because they may be determinants as well as outcomes. That is, higher income or education are likely to protect from experiencing severe financial problems (cf. Dunn, Gilbert, & Wilson, 2011); however, the latter are equally likely to cause a reduction in socio-economic status.

The Current Study

This study aimed to identify risk factors that contribute to the likelihood of experiencing adverse financial events. These events included bankruptcy; repossession of the car or house; denial of credit; missing loan payments; and experiencing unexpected overdraft. It was hypothesized that the probability of those resulted from a nexus of variables, spanning money attitudes, financial capability and socio-economic factors. To test for the relative contribution of these variables, data from an online survey of more than 100 000 British people were analysed. Because of the scarcity of previous research on this topic, the current study was largely exploratory.

Methods

Sample

Overall, 109,472 people completed a BBC-advertised online survey; 51,170 participants declared themselves as males and 58,302 as females. 109,033 people reported

their age with a mean of 49.54 (S.D. = 13.44) ranging from 16[2] to 85 years. The majority (96.5%) of survey takers were from the United Kingdom. During the 152-item survey, participants completed several measures, including money attitudes, behaviours and knowledge, as well as socio-demographic background.

Measures

Money Attitudes Scale (Furnham et al. 2012). This 16-item questionnaire assesses attitudes to money, rated on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Examples read "The best thing about money is that it means you can influence others" and "If I don't save enough money every month I get very anxious".

Financial Capabilities (Atkinson et al. 2006). Four financial capabilities were assessed by sets of three to ten questions each spanning multiple-choice and Likert-type items (Appendix A). Only highest loading items from Atkinson et al.'s (2006) report were administered because of space constraints. Capabilities included "making ends meet" (do you struggle with the money you have?); "keeping track" (how much are you aware or the status of your personal finances?); "planning ahead" (are you financially planning the next two months?); and "staying informed" (do you keep track of financial and economic developments?). Unit-weighted composites had coefficient alpha values of .77 for making ends meet (n = 3); .93 for planning ahead (n = 6); .82 for keeping track (n = 3); and .59 for staying informed (n = 3).

Adverse Financial Events. Participants indicated if they had experienced one or more of the following six adverse financial events (yes/ no) during the past five years:

[2] The legal age for taking part in the survey was 16 years.

bankruptcy; repossession of car; or house; denial of credit; missing loan/ mortgage payments; and experiencing unexpected overdraft.

Education (i.e. highest educational qualification) was recorded in six categories ranging from "not completed GCSE (secondary school certificate) or equivalent" to "completed GCSE or equivalent"; "completed post-16 vocational course or equivalent"; "completed A-levels or equivalent"; "completed undergraduate studies or equivalent"; and "completed postgraduate studies or equivalent".

Income was recorded in 8 categories per annum, ranging from "up to £9,999" to "£10,000 to £19,999"; "£20,000 to £29,999"; "£30,000 to £39,999"; "£40,000 to £49,999"; "£50,000 to £74,999"; "£75,000 to £149,999"; to "£150,000 or more". People who reported not to know their income or preferred not to say were treated as missing data points.

Statistical Analysis

In a first step, the Money Attitudes Scale (Furnham et al. 2012) was subjected to principal factor analysis with oblimin rotation, following Kline's (1986) recommendations, in a random subsample (N = 10 000). Factor identification was based on examination of the scree plot and the Kaiser-rule of Eigenvalues above one; the obtained solution was subsequently tested in two further subsamples (N = 10 000 each). As men and women differ with regard to social, psychological and biological variables, as well as in their financial circumstances, sex differences in means and variances were explored in money attitudes, financial capabilities, income and education. In a next step, correlations of all study variables were computed. Finally, binary logistic regression models were run. Logistic regressions give the probability of occurrence of an event, expressed as an Odds Ratio (OR) that refers to the odds of an event occurring in the presence of a given condition. After z-transforming all variables, adjusting for age and listwise omission of cases with missing data, one series of

models tested the contribution of the independent variables to the risk of experiencing each of the negative financial events, and a second one tested possible interaction effects of sex and socio-economic status with all independent variables[3].

Results

Money Attitudes

Factor analysis suggested the extraction of four readily interpretable money attitude factors across subsamples, accounting for approximately 55% of the total variance. One item did not load substantially on any factor, and was therefore excluded from any further analysis. The four attitude factors closely matched Furnham et al. (2012) findings, including a power oriented money attitude; a security focused attitude; love or generosity by money attitude; and an autonomy worshipping attitude[4]. Factor regression scores represented each attitude factor; coefficient alpha values were .75 for power; .61 for security; .64 for generosity; and .63 for autonomy.

Insert Table 1 and 2 Here

A series of ANOVA tests tested for sex differences in income, education, financial capabilities, and money attitudes. With the exception of education, men and women differed significantly ($p < .001$) in the means and variances of all variables. All further analyses were conducted separately for men and women.

[3] We thank an anonymous reviewer for suggesting this.
[4] Details on the factor analysis are available upon request from the first author.

Correlations

Table 1 and 2 show descriptives and correlations (full and adjusted for age) of all study variables for men and women, respectively. In men and women, education and income were moderately correlated; likewise financial capabilities were positively inter-related, except for keeping track and making ends meet. Keeping track was also negatively associated with income and education in both sexes. While planning ahead had no meaningful association with income and education, which making ends meet, keeping track and staying informed were positively associated with them. Money attitudes were by and large positively inter-correlated but showed little association with education, income and financial capabilities. None of the study's independent variables was meaningfully associated with having experienced bankruptcy or the repossession of car or house. However, negative correlations were observed for missing a payment, denial of credit and unexpected overdraft with the financial capability making ends meet and the security attitude towards money. Overall, correlational patterns did not differ much across sex and after adjusting for age.

Logistic Regressions

In both men and women, denial of credit or unexpected overdraft were the most frequently incurred adverse financial events (about 25% of the sample), while bankruptcy and repossession of car or house were comparatively rare (less than 1% of the sample). These data correspond to nationwide figures with .02% of British people experiencing a form of bankruptcy in 2011 (Consumer Credit Counselling Service, 2012). Table 3 and 4 show the results of the logistic regressions. In both sexes, a standard deviation (1 S.D.) increase in education and income were associated with a reduced risk of bankruptcy, repossession of house or car, missed payments of loans or mortgage, and denial of credit but for unexpected overdraft, the results were less consistent.

Insert Table 3 and 4 Here

In men, 1 S.D. increase in making ends meet lowered the risk for bankruptcy by 35%, repossession of car by 51%, repossession of house by 44%, missed payment by 64%, denial of credit by 58%, and unexpected overdraft by 63%. Also, 1 S.D. increase in keeping track was associated with an increased risk of bankruptcy by 45%, repossession of car by 33%, repossession of car and house by 33% and 18%, respectively, missed payment by 31%, and denial of credit by 36%, but for unexpected overdraft it lowered the odds by 5%. In women, 1 S.D. increase in making ends meet was associated with lowering the risk of bankruptcy by 31%, repossession of the car by 47%, repossession of the house by 44%, missed payment by 65%, denial of credit by 59%, and unexpected overdraft by 66%. Furthermore, 1 S.D. increase in keeping track was associated with an increased risk for bankruptcy by 82%, repossession of car and house by 47% and 42%, respectively, missed payment by 42%, and denial of credit by 47%, while lowering the risk for unexpected overdraft by 3%. In men and women, planning ahead was associated with an increased risk of experiencing adverse financial events with effect sizes ranging from 9% to 26%. Conversely, staying informed was associated with a reduced risk of adverse financial events in both sexes, again with comparatively small effect sizes ranging from 4% to 26%. In both sexes, an increase in the money attitude power was associated with an increased risk of experiencing adverse financial events with effect sizes ranging from 4% to 64%, while the security attitude was related to a reduced risk of having financial problems ranging from 5% to 21%. Generosity and autonomy were not consistently associated with adverse financial events. None of the tested interaction terns were significant, after adjusting for all other independent variables.

Overall, higher income and education reduced the risk of experiencing adverse financial events. Out of four financial capabilities, two – making ends meet and staying informed – reduced risks of having bad financial outcomes, while the other two – keeping track and planning ahead – were related to an increased risk. With regard to money attitudes, power was linked to an increased risk of experiencing adverse financial events, while security appeared to be protective. Generosity and autonomy were financial risk factors but had inconsistent effects.

Discussion

This study evaluated the relative contribution of financial capability, money attitudes and socio-economic factors to the risk of experiencing a range of adverse financial events. Denial of credit and unexpected overdrafts were the most frequently incurred negative financial events (about 25%), while the repossession of goods and bankruptcy occurred comparatively seldom (about 1%) in the current sample (cf. Consumer Credit Counselling Service, 2012). In line with our expectations, higher income and education were generally associated with a reduced risk of experiencing adverse financial events. Beyond that, financial capability and money attitudes were also consistently associated with financial outcomes.

Financial Capability

In line with the previous literature (Atkinson et al. 2006), the financial capabilities of making ends meet, keeping track, planning ahead, and staying informed were moderately and positively inter-related but their associations with indicators of socio-economic status varied (cf. Atkinson et al. 2006). Higher levels of making ends meet and staying informed linked with higher income and education, while higher keeping track related to lower levels. Planning ahead was negligibly associated with socio-economic factors. In line with this, an

increase in making ends meet and staying informed reduced the likelihood of experiencing adverse financial events, while for keeping track and planning ahead the opposite was true (cf. Atkinson et al. 2006). Because of the cross-sectional nature of this study, it is speculative that higher making ends meet and staying informed helps avoiding adverse financial events. Conversely, scoring higher in keeping track and planning ahead may be consequences of negative financial outcomes rather than their causes. For example, after suffering from bankruptcy or the denial of credit, a person's resources are likely to be extremely limited, requiring close monitoring (i.e. keeping track) and careful budgeting for the immediate future (i.e. planning ahead). Compared to all other factors, making ends meet was associated with the most risk reduction for experiencing adverse financial events, while keeping track was related to the highest for having run into financial problems over the past five years. Overall, financial capabilities were here the most influential determinants for the odds of experiencing adverse financial outcomes (cf. Atkinson et al. 2006; Taylor, 2011).

Money Attitudes

The four money attitudes, including power, security, generosity, and autonomy, were positively inter-related, with the exception of security and generosity. Thus, people who perceive money as protective prefer saving to sharing (cf. Furnham et al. 2012; Furnham & Argyle, 1998). In line with some previous research (Goldberg & Lewis, 1978; Yamauchi & Templer, 1982) but not other (cf. Roberts & Sepulveda, 1999), money attitudes were here largely independent of income and education. Viewing money as a power tool, a safety blanket, a way to receive and share love, or as an instrument of liberation had little to do with one's financial means (cf. Dunn et al., 2011). Moreover, money attitudes were not much related to financial capability, except for security, which was positively associated with three capabilities (i.e. with making ends meet, planning ahead, and staying informed). This

suggests that people with a money-security attitude are also more capable of managing their resources than those who do not associate money with security.

Power and security attitudes contributed most consistently to the odds of experiencing adverse financial events, albeit in opposite directions: while higher power was associated with an increase in risk, security was with a decrease. It is plausible that people, who associate money with power, try to demonstrate the latter by purchasing status symbols that are possibly beyond their means. Correspondingly, higher power was especially associated with the risk for car repossession: power-oriented individuals may purchase overly expensive vehicles to signal higher social status but fail to keep up with the repayments.

Strengths and Limitations

This study has some noticeable strengths, including a very large sample drawn from the British public and a wide range of relevant measures. It is also not without weaknesses. First, because of the study's single-wave survey design, causal interpretations for the observed associations remain speculative. Second, the representativeness of an "online" sample may be questioned but previous research demonstrated that results from online surveys are consistent with traditional methods (Gosling, Vazire, Srivastava, & John, 2004). Third, because no previous study reported associations explored here, there is little to compare our findings to.

Conclusions

Adverse financial experiences appear to have common causes, which result from a complex nexus of inter-related predictor variables that include financial capability, money attitudes and socio-economic factors. Even though financial capabilities were found to have the strongest effect for the odds of experiencing adverse financial outcomes, money attitudes

are likely to constitute more adequate target constructs for intervention programs (cf. Armstrong et al., 2011). Specifically, money attitudes were negligibly associated with socio-economic factors and thus, are likely to be changeable independently of levels of income and education. By contrast, financial capabilities may be strongly underpinned by socio-economic status differences (Atkinson, McKay, Collard, & Kempson, 2007). To reduce rates of negative financial outcomes, it may be advisable to encourage perceptions of money as a mean for security and to avoid its associations with status enhancement. In fact, a broader adaptation of security attitudes towards money may not only lower the individual's risk of going bankrupt but it may also reduce the probability for future global finance crises.

References

Allen, R. (2011). Who experiences foreclosures? The characteristics of households experiencing a foreclosure in Minneapolis, Minnesota. *Housing Studies, 26,* 845-866.

Armstrong, P. I., Su, R., & Rounds, J. (2011). Vocational interests: The road less traveled. In T. Chamorro-Premuzic, S. von Stumm, & Furnham, A. (Eds.), *Handbook of Individual Differences* (pp. 608-631). Oxford: Wiley-Blackwell.

Atkinson, A., McKay, S., Kempson, E., & Collard, S. (2006). Levels of financial capability in the UK. Results of a baseline survey. *FSA Consumer Research Paper 47.* FSA: London.

Atkinson, A., McKay, S., Collard, S., & Kempson, E. (2007). Levels of Financial Capability in the UK. *Public Money and Management, 27*(1), 29-36.

Consumer Credit Counselling Service (2012). CCCS statistical yearbook 2011. Report paper; http://www.cccs.co.uk/MediaCentre/Researchandreports.aspx; retrieved 08/09/2012.

Dunn, E. W., Gilbert, D. T., & Wilson, T. (2011). If money doesn't make you happy then you probably aren't spending it right. *Journal of Consumer Psychology, 21,* 115-125.

Funder, D. C. (2001). Personality. *Annual Review of Psychology, 52,* 197-221.

Furnham, A., Wilson, E., & Telford, K. (2012). The meaning of money: The validation of a short money- type measure. *Personality and Individual Differences, 52 (6),* 707-711.

Furnham, A., & Argyle, M. (1998). *The psychology of money.* London: Routledge.

Goldberg, H., & Lewis, R. T. (1978). *Money madness: The psychology of saving, spending, loving, and hating money.* New York: Morrow.

Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust Web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist, 59*, 93-104.

HM Treasury (2007). *Financial capability: The Government's long-term approach.* London: HMSO.

Kline, P. (1986). *A handbook of test construction: Introduction to psychometric design.* New York, US: Methuen.

Pollack, C., & Lynch, J. (2009). Health status of people undergoing foreclosure in the Philadelphia region. *American Journal of Public Health, 99*, 1833-1839.

Roberts, J. A., & Sepulveda, C. J. (1999). Demographics and money attitudes: A test of Yamauchi & Templer (1982) money attitude scale in Mexico. *Personality and Individual Differences, 27*, 19-35.

Tang, T. L. P. (1995). The development of a short money ethic scale: Attitudes toward money and pay satisfaction revisited. *Personality and Individual Differences, 19,* 809-816.

Taylor, M. (2011). Measuring financial capability and its determinants using survey data. *Social Indicators Research Volume, 102*, 297-314.

Yamauchi, K. T., & Templer, D. I. (1982). The development of a Money Attitudes Scale. *Journal of Personality Assessment, 46*, 522–528.

Table 1

Descriptives and correlations for the study's variables in men

		N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Education	51170	4.16	1.49	-	.24	.14	-.11	-.02	.17	-.09	.09	-.02	-.09	-.06	-.06	-.04	-.13	-.12	-.04
2	Income	51170	4.67	2.24	.23	-	.17	-.11	-.04	.17	.00	.06	.02	-.02	-.05	-.04	-.03	-.12	-.13	-.09
3	Meet Ends	51027	5.32	2.59	.10	.17	-	.06	.25	.28	-.07	.41	-.12	-.07	-.08	-.10	-.07	-.37	-.39	-.42
4	Keep Track	50974	11.69	2.78	-.11	-.11	.05	-	.39	.17	.03	.04	.02	.04	.04	.03	.02	.07	.10	-.02
5	Plan ahead	50901	22.14	6.24	-.02	-.04	.25	.39	-	.33	.04	.25	.01	.02	.00	-.01	.00	-.05	-.04	-.09
6	Stay Inf	51170	13.46	3.37	.13	.17	.32	.16	.33	-	.03	.23	.00	.02	-.04	-.04	-.02	-.11	-.11	-.12
7	Power	51170	0.15	0.94	-.07	.00	-.11	.03	.03	-.01	-	.10	.34	.56	.04	.05	.03	.06	.07	.05
8	Security	51170	0.09	0.83	.08	.07	.41	.04	.25	.23	.10	-	-.07	.13	-.04	-.03	-.03	-.17	-.20	-.18
9	Generosity	51170	-0.06	0.82	.00	.02	-.15	.02	.01	-.03	.35	-.07	-	.21	.03	.02	.02	.07	.08	.08
10	Autonomy	51170	0.05	0.88	-.08	-.02	-.08	.04	.02	.01	.56	.12	.22	-	.03	.02	.02	.05	.07	.05
11	Bankruptcy				-.06	-.05	-.08	.04	.00	-.04	.04	-.04	.03	.03	-	.28	.32	.21	.17	.09

12	Reposs Car	-.06	-.04	-.10	.03	-.01	-.04	.05	-.03	.02	.02	.28	-	.32	.19	.13	.08
13	Reposs House	-.04	-.03	-.07	.02	.00	-.02	.04	-.03	.02	.02	.32	.32	-	.21	.11	.08
14	Miss Pay	-.12	-.12	-.38	.07	-.05	-.12	.07	-.17	.07	.05	.21	.19	.21	-	.42	.32
15	Credit Denial	-.09	-.13	-.42	.10	-.05	-.14	.09	-.20	.10	.07	.17	.13	.11	.43	-	.32
16	Overdraft	-.02	-.09	-.45	-.02	-.09	-.15	.08	-.18	.10	.06	.09	.09	.08	.33	.34	-

Note. Correlations below the diagonal are computed after listwise omission (N = 50,584). Correlations above the diagonal are adjusted for age (N = 50,365, after listwise omission). For frequencies of adverse financial events, see Table 3. Key: Stay Inf = Staying Informed; Reposs = Repossession; Miss Pay = Missing Payment; Overdraft = Unexpected overdraft.

Table 2

Descriptives and correlations for the study's variables in women

		N	*M*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
1	Education	58302	4.15	1.48	-	.20	.13	-.17	.01	.18	-.06	.10	.02	-.07	-.06	-.04	-.05	-.12	-.11	-.02
2	Income	58302	4.27	2.34	.19	-	.17	-.14	-.03	.12	.01	.06	.00	-.03	-.05	-.02	-.04	-.11	-.14	-.08
3	Meet Ends	58149	6.03	2.85	.08	.16	-	-.01	.27	.24	-.10	.43	-.15	-.12	-.08	-.07	-.07	-.35	-.40	-.41
4	Keep Track	58080	11.84	2.81	-.16	-.14	-.02	-	.38	.14	.01	.00	-.01	.03	.06	.03	.04	.11	.15	.00
5	Plan ahead	57978	22.58	6.02	.00	-.03	.27	.37	-	.35	-.01	.26	-.03	-.01	.00	-.01	-.01	-.06	-.05	-.10
6	Stay Inf	58302	12.70	3.34	.12	.12	.29	.12	.34	-	.01	.22	-.01	-.01	-.05	-.03	-.03	-.09	-.10	-.10
7	Power	58302	-0.13	0.85	-.05	.01	-.11	.01	-.01	-.02	-	.05	.36	.54	.03	.03	.01	.06	.07	.06
8	Security	58302	-0.08	0.84	.10	.06	.41	.00	.26	.22	.05	-	-.07	.08	-.06	-.03	-.03	-.16	-.22	-.18
9	Generosity	58302	0.05	0.86	.03	.00	-.16	-.01	-.04	-.03	.36	-.07	-	.23	.02	.00	.01	.04	.08	.09
10	Autonomy	58302	-0.04	0.86	-.06	-.03	-.12	.03	-.01	-.01	.53	.08	.23	-	.02	.02	.01	.07	.09	.07
11	Bankruptcy				-.06	-.05	-.08	.06	.00	-.05	.03	-.06	.02	.02	-	.22	.21	.20	.16	.07

12	Reposs Car	-.04	-.02	-.07	.03	-.01	-.03	.03	-.03	.01	.02	.22	-	.17	.14	.10	.06
13	Reposs House	-.05	-.04	-.07	.03	-.01	-.03	.01	-.03	.01	.01	.21	.17	-	.19	.11	.05
14	Miss Pay	-.10	-.11	-.36	.11	-.06	-.10	.06	-.16	.05	.07	.20	.14	.20	-	.42	.29
15	Credit Denial	-.08	-.13	-.42	.15	-.06	-.14	.08	-.22	.09	.09	.16	.10	.11	.42	-	.31
16	Overdraft	.01	-.08	-.43	.01	-.10	-.13	.06	-.18	.10	.07	.07	.06	.06	.29	.33	-

Note. Correlations below the diagonal are computed after listwise omission (N = 57,615). Correlations above the diagonal are adjusted for age (N = 57,403, after listwise omission). For frequencies of adverse financial events, see Table 4. For key, see Table 1.

Table 3

Odds ratios for the risk of adverse financial events in men

	Bankruptcy			Repossession of car			Repossession of house			Missed payment			Denial of Credit			Unexpected overdraft		
	OR	CI (95%)		OR	CI (95%)		OR	CI (95%)		OR	CI (95%)		OR	CI (95%)		OR	CI (95%)	
Education	**0.76**	**(0.70**	**0.82)**	**0.67**	**(0.60**	**0.74)**	**0.79**	**(0.70**	**0.88)**	**0.80**	**(0.77**	**0.83)**	**0.90**	**(0.87**	**0.92)**	**1.08**	**(1.05**	**1.11)**
Income	**0.81**	**(0.74**	**0.89)**	**0.88**	**(0.74**	**0.99)**	**0.82**	**(0.73**	**0.93)**	**0.85**	**(0.82**	**0.89)**	**0.88**	**(0.86**	**0.90)**	**0.96**	**(0.94**	**0.99)**
Meet Ends	**0.65**	**(0.60**	**0.71)**	**0.49**	**(0.37**	**0.54)**	**0.56**	**(0.51**	**0.62)**	**0.36**	**(0.35**	**0.37)**	**0.42**	**(0.41**	**0.43)**	**0.37**	**(0.36**	**0.38)**
Keep Track	**1.45**	**(1.32**	**1.59)**	**1.33**	**(1.28**	**1.51)**	**1.18**	**(1.04**	**1.33)**	**1.31**	**(1.25**	**1.36)**	**1.36**	**(1.32**	**1.40)**	**0.95**	**(0.93**	**0.98)**
Plan Ahead	**1.11**	**(1.01**	**1.22)**	1.17	(0.91	1.33)	**1.26**	**(1.01**	**1.44)**	**1.18**	**(1.13**	**1.23)**	**1.13**	**(1.09**	**1.17)**	**1.09**	**(1.06**	**1.13)**
Informed	**0.88**	**(0.81**	**0.96)**	**0.88**	**(0.69**	**0.98)**	0.97	(0.86	1.09)	**0.94**	**(0.91**	**0.98)**	0.98	(0.95	1.01)	0.97	(0.95	1.00)
Power	1.26	(0.94	1.30)	**1.64**	**(1.30**	**1.85)**	**1.38**	**(1.21**	**1.57)**	**1.12**	**(1.07**	**1.17)**	**1.18**	**(1.05**	**1.12)**	**1.05**	**(1.01**	**1.08)**
Security	**0.89**	**(0.82**	**0.96)**	1.03	(0.83	1.15)	0.89	(0.80	1.00)	**0.86**	**(0.83**	**0.89)**	**0.82**	**(0.80**	**0.85)**	**0.95**	**(0.92**	**0.97)**
Generosity	1.07	(0.99	1.17)	0.92	(0.73	1.03)	0.97	(0.87	1.09)	**1.06**	**(1.02**	**1.10)**	1.05	(1.02	1.08)	**1.07**	**(1.04**	**1.10)**
Autonomy	0.99	(0.90	1.20)	**0.85**	**(0.64**	**0.98)**	0.97	(0.84	1.12)	1.00	(0.96	1.04)	1.06	(1.03	1.10)	1.01	(0.98	1.04)
Count																		
No		*48721*			*50029*			*50045*			*46346*			*41667*			*41293*	
Yes		*641*			*339*			*323*			*4022*			*8701*			*9075*	

Note. OR refers to Odds Ratio, while CI (95%) refers to a Confidence Interval of 95% for the estimated Odds Ratio. Significant Odds Ratios are shown in bold. Models are adjusted for age.

Table 4

Odds ratios for the risk of adverse financial events in women

	Bankruptcy			Repossession of car			Repossession of house			Missed payment			Denial of Credit			Unexpected overdraft		
	OR	CI (95%)		OR	CI (95%)		OR	CI (95%)		OR	CI (95%)		OR	CI (95%)		OR	CI (95%)	
Education	**0.81**	**(0.75**	**0.87)**	**0.70**	**(0.62**	**0.80)**	**0.71**	**(0.63**	**0.79)**	**0.84**	**(0.82**	**0.87)**	**0.94**	**(0.92**	**0.96)**	**1.13**	**(1.11**	**1.16)**
Income	**0.81**	**(0.74**	**0.89)**	0.98	(0.87	1.12)	**0.77**	**(0.67**	**0.87)**	**0.85**	**(0.82**	**0.88)**	**0.86**	**(0.83**	**0.88)**	**0.94**	**(0.92**	**0.96)**
Meet Ends	**0.69**	**(0.64**	**0.75)**	**0.53**	**(0.47**	**0.59)**	**0.56**	**(0.50**	**0.63)**	**0.35**	**(0.34**	**0.36)**	**0.41**	**(0.40**	**0.42)**	**0.34**	**(0.36**	**0.38)**
Keep Track	**1.82**	**(1.65**	**2.02)**	**1.47**	**(1.27**	**1.70)**	**1.42**	**(1.25**	**1.62)**	**1.42**	**(1.38**	**1.49)**	**1.47**	**(1.43**	**1.52)**	**0.97**	**(0.95**	**0.99)**
Plan Ahead	**1.18**	**(1.08**	**1.28)**	1.14	(1.00	1.30)	1.13	(1.00	1.28)	**1.13**	**(1.09**	**1.17)**	**1.11**	**(1.08**	**1.14)**	**1.09**	**(1.07**	**1.12)**
Informed	**0.74**	**(0.68**	**0.81)**	**0.85**	**(0.75**	**0.97)**	**0.82**	**(0.73**	**0.92)**	0.97	(0.93	1.00)	**0.96**	**(0.93**	**0.98)**	0.99	(0.96	1.01)
Power	**1.14**	**(1.05**	**1.24)**	**1.34**	**(1.18**	**1.52)**	1.05	(0.93	1.18)	**1.05**	**(1.01**	**1.09)**	**1.04**	**(1.01**	**1.07)**	1.01	(0.99	1.04)
Security	**0.79**	**(0.74**	**0.86)**	0.93	(0.83	1.05)	0.95	(0.85	1.05)	**0.88**	**(0.85**	**0.91)**	**0.80**	**(0.78**	**0.82)**	**0.94**	**(0.91**	**0.96)**
Generosity	1.01	(0.94	1.09)	**0.87**	**(0.77**	**0.98)**	1.00	(0.90	1.11)	**0.96**	**(0.93**	**0.99)**	**1.05**	**(1.02**	**1.07)**	**1.08**	**(1.05**	**1.10)**
Autonomy	1.04	(0.95	1.14)	0.96	(0.83	1.10)	1.02	(0.90	1.15)	**1.08**	**(1.06**	**1.14)**	**1.11**	**(1.08**	**1.14)**	1.03	(1.00	1.06)
Count																		
No		*56679*			*57118*			*57048*			*52358*			*46036*			*45501*	
Yes		*724*			*285*			*355*			*5045*			*11367*			*11902*	

Note. See Table 3.