

Appendices

A Bundesbank Online Panel Questionnaire

This appendix lists the inserted questions in the Bundesbank Online Panel Wave 8. Note that the original questions were asked in German.

816A	PRO A1	Stock market 1	has_portfolio_[a-d]
<p>Info box with the following text:</p> <p>A) A fund is a "basket" of many, sometimes very different, securities. A fund share denotes a share in this basket and its income. In some cases, the fund finances only individual projects, such as real estate, ship building or films. Examples of common types of funds are share-based funds, bond-based funds, money market funds, funds of funds, hedge funds, exchange-traded funds (ETFs), shipping funds and media funds.</p> <p>B) Fixed income securities are assets which entitle the bearer to a pre-determined rate of interest. Depending on who issued these securities, they could be government bonds (such as Federal bonds, Federal savings notes, Federal Treasury financing paper, Federal Treasury notes, municipal bonds, Pfandbriefe issued by central, state or local government), corporate bonds or other debt securities (e.g. bank bonds).</p> <p>C) A listed share is a security that is traded on the stock exchange which shows the shareholder (owner of the security) as being a co-owner of a public limited company. This type of security therefore usually entitles the bearer to a share of the company's income. The share constitutes a certificate which securitises a share in the capital of a public limited company.</p> <p>QUESTION: Prior to the coronavirus pandemic, did you hold the following financial assets directly in your safe custody account?</p> <p>1 = Yes 2 = No</p> <p>a) Fund shares b) Fixed income securities (such as government bonds, corporate bonds and bank bonds) c) Listed shares d) Other financial products (such as foreign exchange, gold, cryptocurrency)</p>			

816B	PRO A1	Stock market 1	value_portfolio_[a-d]
<p>Input filter: <code>if has_portfolio_a == 1 OR has_portfolio_b == 1 OR has_portfolio_c == 1 OR has_portfolio_d == 1</code></p> <p>Info box with the following text:</p> <p>A) A fund is a "basket" of many, sometimes very different, securities. A fund share denotes a share in this basket and its income. In some cases, the fund finances only individual projects, such as real estate, ship building or films. Examples of common types of funds are share-based funds, bond-based funds, money market funds, funds of funds, hedge funds, exchange-traded funds (ETFs), shipping funds and media funds.</p> <p>B) Fixed income securities are assets which entitle the bearer to a pre-determined rate of interest. Depending on who issued these securities, they could be government bonds (such as Federal bonds, Federal savings notes, Federal Treasury financing paper, Federal Treasury notes, municipal bonds, Pfandbriefe issued by central, state or local government), corporate bonds or other debt securities (e.g. bank bonds).</p> <p>C) A listed share is a security that is traded on the stock exchange which shows the shareholder (owner of the security) as being a co-owner of a public limited company. This type of security therefore usually entitles the bearer to a share of the company's income. The share constitutes a certificate which securitises a share in the capital of a public limited company.</p> <p>QUESTION: What is your rough estimate of the market value of your financial assets prior to the coronavirus pandemic?</p> <ul style="list-style-type: none"> a Fund shares [only show item if <code>portfolio_a = 1</code>] b Fixed income securities (such as government bonds, corporate bonds and bank bonds) [only show item if <code>portfolio_b = 1</code>] c Listed shares [only show item if <code>portfolio_c = 1</code>] d Other financial products (such as foreign exchange, gold, cryptocurrency) [only show item if <code>portfolio_d = 1</code>] <p>Show brackets:</p> <ul style="list-style-type: none"> 1 = €1 to less than €500 2 = €500 to less than €1,000 3 = €1,000 to less than €3,000 4 = €3,000 to less than €5,000 5 = €5,000 to less than €10,000 6 = €10,000 to less than €20,000 7 = €20,000 to less than €30,000 8 = €30,000 to less than €50,000 9 = €50,000 or more 			

817A	PRO A1	Stock market 2 – change	portfolio_bought_[a-d] portfolio_sold_[a-d] portfolio_unchanged_[a-d]																				
<p>QUESTION: Have you bought or sold the following financial assets <u>since the start of the coronavirus pandemic?</u></p> <table border="1"> <thead> <tr> <th></th> <th>1 – Bought</th> <th>2 – Sold</th> <th>3 – Neither bought nor sold</th> </tr> </thead> <tbody> <tr> <td>a) Fund shares</td> <td></td> <td></td> <td></td> </tr> <tr> <td>b) Fixed income securities</td> <td></td> <td></td> <td></td> </tr> <tr> <td>c) Listed shares</td> <td></td> <td></td> <td></td> </tr> <tr> <td>d) Other financial products (such as foreign exchange, gold, cryptocurrency)</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					1 – Bought	2 – Sold	3 – Neither bought nor sold	a) Fund shares				b) Fixed income securities				c) Listed shares				d) Other financial products (such as foreign exchange, gold, cryptocurrency)			
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a) Fund shares																							
b) Fixed income securities																							
c) Listed shares																							
d) Other financial products (such as foreign exchange, gold, cryptocurrency)																							

817B	PRO A1	Stock market 2 – value	portfolio_value_bought_[a-d] portfolio_value_sold_[a-d]
Input filter: if portfolio_unchanged_a == 2 OR portfolio_unchanged_b == 2 OR portfolio_unchanged_c == 2 OR portfolio_unchanged_d == 2			
QUESTION: Please indicate the amount for which you have bought or sold financial assets <u>since</u> <u>the start of the coronavirus pandemic.</u>			
		1 – Bought	2 – Sold
a) Fundshares [only show item if portfolio_bought_a =1 OR portfolio_sold_a = 1]		_euro	_euro
b) Fixed income securities [only show item if portfolio_bought_b =1 OR portfolio_sold_b = 1]		_euro	_euro
c) Listed shares [only show item if portfolio_bought_c =1 OR portfolio_sold_c = 1]		_euro	_euro
d) Other financial products (such as foreign exchange, gold, cryptocurrency) [only show item if portfolio_bought_d =1 OR portfolio_sold_d = 1]		_euro	_euro

818A	PRO A1	Stock market 3a	portfolio_reason_bought[a-h]
Input filter: if portfolio_bought_a == 1 OR portfolio_bought_b == 1 OR portfolio_bought_c == 1 OR portfolio_bought_d == 1			
Order of the categories a to h is generated randomly for each respondent.			
<p>QUESTION: Why did you decide to buy the asset(s) after the coronavirus pandemic began?</p> <p>1 = Strongly agree 2 = Mostly agree 3 = Mostly disagree 4 = Strongly disagree Please select an answer for each row.</p> <p>a The prices are/were low at the time. b I (finally) found time for it. c I received additional information (e.g. from your bank, social media, television). d Since my consumption expenditure has fallen, I have money to invest e Since my income has risen, I have money to invest. f My bank has (temporarily) lowered its safe custody account costs. g People in my circle of (close) family and friends have also bought assets. h I have a fixed savings plan.</p>			

818B	PRO A1	Stock market 3b	portfolio_reason_sold[a-i]
Input filter: if portfolio_sold_a == 1 OR portfolio_sold_b == 1 OR portfolio_sold_c == 1 OR portfolio_sold_d == 1			
Order of the categories a to i is generated randomly for each respondent.			
<p>QUESTION: Why did you decide to sell the asset(s) after the coronavirus pandemic began?</p> <p>1 = Strongly agree 2 = Mostly agree 3 = Mostly disagree 4 = Strongly disagree</p> <p>Please select an answer for each row.</p> <p>a Prices will fall again or fall lower. b I have no time for it (anymore). c The recent collapse in financial market prices put me off. d Financial assets are too risky for me at the moment. e I needed the money to pay my bills. f I needed the money to support friends and relatives. g I needed the money for other consumption expenditure. h People in my circle of (close) family and friends have also sold assets. i I preferred to invest in other financial assets.</p>			

818C	PRO A1	Stock market 3c	portfolio_reason_nostocks[a-k]
Input filter: if has_portfolio_a==2 AND has_portfolio_b==2 AND has_portfolio_c==2 AND has_portfolio_d==2 AND portfolio_unchanged_a == 1 AND portfolio_unchanged_b == 1 AND portfolio_unchanged_c == 1 AND portfolio_unchanged_d == 1			
<p>QUESTION: Why did you decide not to buy any asset(s) during the coronavirus pandemic?</p> <p>1 = Strongly agree 2 = Mostly agree 3 = Mostly disagree 4 = Strongly disagree</p> <p>Please select an answer for each row.</p> <p>a Prices will fall again or fall lower. b I have no time for it (anymore). c I do not know enough about the financial market or how to buy assets. d The recent collapse in financial market prices puts me off. e Financial assets are too risky for me at the moment. f I have no money to save. g The costs of safe custody accounts and transactions are too high for me. h No one in my circle of (close) family and friends holds assets. i I do not trust the stock market. j I have moral concerns. k I have no interest in it.</p>			

818D	PRO A1	Stock market 3d	portfolio_reason_unchange[a-f]
Input filter: if (has_portfolio_a==1 OR has_portfolio_b==1 OR has_portfolio_c==1 OR has_portfolio_d==1) AND (portfolio_unchanged_a == 1 AND portfolio_unchanged_b == 1 AND portfolio_unchanged_c == 1 AND portfolio_unchanged_d == 1)			
<p>QUESTION: Why did you decide not to buy any more assets during the coronavirus pandemic?</p> <p>1 = Strongly agree 2 = Mostly agree 3 = Mostly disagree 4 = Strongly disagree</p> <p>Please select an answer for each row.</p> <p>a Prices will fall again or fall lower. b I have no time for it (anymore). c Financial assets are too risky for me at the moment. d I have no money to save. e The transaction costs are too high for me. f People in my circle of (close) family and friends have not bought assets either.</p>			

B Additional Regression Tables

This section lists additional regression tables.

Table 1 Regression Table: Reason for Non Participation and Demographics

	(1) no information	(2) no interest	(3) distrust	(4) too risky	(5) no time	(6) peer-effect	(7) no savings	(8) prices fall	(9) shock	(10) cost	(11) moral
college	0.021 (0.082)	0.163 (0.100)	-0.051 (0.078)	0.032 (0.081)	0.163* (0.096)	-0.113 (0.110)	-0.107 (0.133)	-0.076 (0.085)	-0.074 (0.093)	-0.012 (0.098)	0.061 (0.099)
full-time	0.119 (0.117)	0.044 (0.159)	-0.013 (0.121)	0.077 (0.129)	0.294** (0.131)	0.228 (0.164)	-0.260 (0.193)	-0.045 (0.134)	-0.079 (0.136)	0.030 (0.125)	-0.373** (0.154)
part-time	0.095 (0.134)	0.244 (0.162)	-0.036 (0.136)	0.038 (0.131)	0.092 (0.179)	0.137 (0.186)	-0.329 (0.224)	-0.083 (0.146)	-0.115 (0.144)	0.051 (0.139)	-0.058 (0.168)
retired	0.072 (0.179)	0.222 (0.198)	-0.100 (0.142)	-0.078 (0.184)	0.029 (0.179)	0.136 (0.208)	-0.126 (0.229)	0.248 (0.156)	-0.085 (0.177)	0.122 (0.177)	-0.385** (0.191)
self-employed	-0.300 (0.229)	0.001 (0.281)	-0.248 (0.171)	0.005 (0.180)	0.391** (0.196)	0.079 (0.211)	-0.300 (0.432)	0.488** (0.229)	0.116 (0.215)	0.102 (0.239)	-0.301 (0.239)
female	0.071 (0.079)	0.161* (0.088)	-0.015 (0.078)	-0.078 (0.078)	0.139* (0.081)	-0.135 (0.101)	-0.006 (0.118)	-0.047 (0.082)	0.018 (0.084)	-0.029 (0.082)	-0.108 (0.093)
short-time work	0.241* (0.137)	0.249 (0.197)	0.092 (0.149)	-0.143 (0.165)	-0.226 (0.177)	-0.129 (0.167)	-0.392 (0.291)	0.152 (0.133)	0.298 (0.217)	-0.284 (0.188)	0.183 (0.217)
children	-0.119 (0.087)	0.092 (0.111)	0.124 (0.092)	-0.167* (0.098)	0.157 (0.107)	0.001 (0.123)	0.242* (0.139)	-0.139 (0.103)	-0.067 (0.098)	-0.155 (0.102)	-0.024 (0.115)
1500-3000	-0.079 (0.118)	0.226* (0.133)	-0.067 (0.115)	0.207* (0.117)	0.060 (0.129)	0.026 (0.148)	-0.199 (0.186)	0.129 (0.111)	-0.030 (0.124)	-0.050 (0.124)	-0.202 (0.156)
3000-5000	-0.047 (0.126)	0.246 (0.149)	-0.019 (0.127)	0.269** (0.118)	0.050 (0.140)	0.049 (0.149)	-0.589*** (0.221)	0.138 (0.118)	-0.028 (0.117)	-0.000 (0.135)	-0.045 (0.177)
5000-8000	0.069 (0.153)	0.427** (0.187)	-0.009 (0.150)	0.092 (0.138)	0.082 (0.177)	-0.170 (0.193)	-0.695*** (0.255)	0.269 (0.168)	0.108 (0.137)	0.028 (0.150)	-0.161 (0.179)
8000+	-0.278 (0.177)	0.522** (0.204)	0.151 (0.171)	0.452*** (0.151)	-0.032 (0.279)	-0.410 (0.326)	-0.458 (0.278)	0.077 (0.186)	0.139 (0.209)	0.204 (0.218)	-0.413* (0.211)
owner	-0.038 (0.075)	0.035 (0.094)	-0.003 (0.075)	0.028 (0.082)	0.010 (0.089)	-0.009 (0.099)	-0.065 (0.125)	0.089 (0.085)	0.051 (0.082)	-0.074 (0.085)	-0.035 (0.105)
age	-0.014*** (0.003)	-0.001 (0.004)	0.010*** (0.003)	0.009** (0.004)	-0.014*** (0.004)	0.003 (0.004)	-0.005 (0.005)	-0.003 (0.004)	0.010** (0.004)	0.003 (0.003)	0.001 (0.004)
fin illiterate	0.261** (0.103)	0.035 (0.119)	-0.133 (0.112)	-0.067 (0.127)	0.005 (0.129)	-0.052 (0.172)	-0.292** (0.129)	-0.041 (0.119)	0.129 (0.155)	0.029 (0.144)	0.121 (0.139)
Observations	838	837	833	824	829	831	837	817	819	812	829
Adjusted R^2	0.087	0.031	0.022	0.049	0.109	0.015	0.054	0.031	0.031	0.012	0.023

OLS model with standardized version of reason as dependent variable on demographics.
Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2 Regression Table: Reason for No Adjustment and Demographics

	(1) no time	(2) no savings	(3) too risky	(4) peer effect	(5) costs
college	0.210 (0.208)	0.254* (0.152)	0.020 (0.198)	-0.137 (0.136)	-0.358** (0.170)
full-time	-0.214 (0.386)	-0.106 (0.326)	-0.250 (0.434)	0.102 (0.213)	0.445 (0.304)
part-time	-0.561 (0.395)	-0.193 (0.401)	0.325 (0.534)	0.058 (0.277)	0.450 (0.328)
retired	-1.000** (0.484)	0.171 (0.395)	-0.168 (0.504)	-0.064 (0.293)	1.150*** (0.405)
self-employed	-0.886* (0.502)	-0.289 (0.392)	0.811* (0.432)	-0.011 (0.383)	0.415 (0.373)
female	0.062 (0.202)	0.111 (0.138)	-0.263 (0.178)	-0.015 (0.129)	0.141 (0.176)
short-time work	-0.409 (0.326)	0.039 (0.249)	-0.404 (0.291)	0.377 (0.345)	0.494 (0.366)
children	0.031 (0.274)	0.432* (0.226)	0.044 (0.268)	-0.099 (0.181)	-0.314 (0.237)
1500-3000	-0.064 (0.331)	-0.164 (0.259)	-0.193 (0.420)	0.217 (0.251)	0.010 (0.333)
3000-5000	-0.059 (0.327)	0.169 (0.264)	-0.245 (0.424)	0.000 (0.249)	0.212 (0.326)
5000-8000	0.232 (0.418)	-0.346 (0.314)	-0.523 (0.520)	-0.072 (0.289)	0.769** (0.348)
8000+	0.351 (0.440)	0.291 (0.393)	-1.190** (0.574)	0.218 (0.334)	0.402 (0.415)
owner	-0.052 (0.192)	-0.135 (0.139)	-0.051 (0.216)	0.040 (0.149)	-0.205 (0.180)
age	0.001 (0.010)	0.003 (0.007)	0.001 (0.009)	0.013* (0.007)	-0.016 (0.010)
fin illiterate	0.126 (0.331)	0.413 (0.332)	-0.430 (0.528)	-0.513*** (0.187)	0.251 (0.458)
Observations	219	218	219	216	215
Adjusted R^2	0.076	0.073	0.040	0.062	0.105

OLS model with standardized version of reason for no adjustment as dependent variable on demographics.
Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3 Regression Table: Reasons for Selling and Demographics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	prices fall	re-balancing	shock	too risky	need consumption	need debt obligation	no time	peer-effect	need support friends and family
college	0.296 (0.273)	0.117 (0.278)	-0.255 (0.185)	0.300* (0.166)	-0.549** (0.228)	-0.354* (0.180)	0.094 (0.155)	0.510*** (0.161)	-0.160* (0.085)
full-time	0.801* (0.418)	-0.240 (0.376)	0.630* (0.354)	-0.160 (0.366)	-0.181 (0.474)	-0.162 (0.507)	-0.639* (0.380)	-0.290 (0.284)	0.240 (0.239)
part-time	0.546 (0.712)	-0.049 (0.825)	0.304 (0.425)	0.012 (0.537)	-0.407 (0.599)	0.213 (0.637)	-0.173 (0.455)	-0.323 (0.310)	-0.123 (0.286)
retired	0.638 (0.603)	-0.758 (0.656)	0.094 (0.470)	-0.269 (0.445)	0.347 (0.519)	0.122 (0.535)	-0.324 (0.457)	-0.064 (0.340)	0.214 (0.282)
self-employed	-0.027 (0.546)	0.077 (0.681)	0.359 (0.433)	-0.288 (0.462)	0.631 (0.670)	0.037 (0.508)	-0.850** (0.420)	-0.143 (0.320)	0.204 (0.261)
female	0.320 (0.338)	0.451 (0.327)	-0.336 (0.254)	-0.314* (0.189)	0.085 (0.246)	-0.145 (0.196)	-0.167 (0.136)	0.028 (0.098)	0.077 (0.083)
short-time work	-0.258 (0.491)	-1.644* (0.889)	-1.127* (0.632)	-0.353 (0.489)	1.479** (0.729)	0.982 (0.605)	-0.183 (0.484)	0.261 (0.381)	0.842 (0.585)
children	0.139 (0.304)	-0.583* (0.337)	-0.241 (0.220)	-0.014 (0.214)	0.355 (0.250)	0.140 (0.261)	0.034 (0.164)	-0.089 (0.136)	0.258** (0.104)
1500-3000	0.170 (0.478)	0.652 (0.445)	-0.136 (0.480)	0.128 (0.431)	0.386 (0.463)	0.243 (0.333)	-0.664* (0.390)	-0.570 (0.372)	-0.210 (0.264)
3000-5000	-0.087 (0.442)	0.522 (0.483)	-0.184 (0.460)	0.177 (0.425)	0.558 (0.459)	0.501 (0.387)	-0.707* (0.386)	-0.589* (0.345)	-0.192 (0.255)
5000-8000	0.539 (0.504)	0.436 (0.504)	-0.370 (0.484)	0.181 (0.457)	0.167 (0.481)	0.029 (0.366)	-0.225 (0.413)	-0.592 (0.372)	-0.165 (0.269)
8000+	0.111 (0.567)	-0.027 (0.608)	-0.149 (0.540)	0.398 (0.505)	0.495 (0.482)	0.419 (0.367)	-0.646 (0.419)	-0.598 (0.381)	-0.003 (0.264)
owner	0.194 (0.294)	-0.159 (0.352)	0.172 (0.195)	-0.181 (0.186)	-0.003 (0.249)	-0.023 (0.193)	0.157 (0.132)	-0.038 (0.128)	-0.118 (0.075)
age	0.001 (0.013)	0.000 (0.017)	0.017** (0.009)	0.019** (0.008)	-0.017 (0.011)	-0.012 (0.009)	-0.005 (0.006)	-0.002 (0.006)	-0.002 (0.004)
fin illiterate	-0.203 (0.462)	1.387*** (0.500)	0.654 (0.472)	0.097 (0.334)	-1.056** (0.493)	-0.375 (0.444)	0.188 (0.427)	-0.837** (0.376)	0.145 (0.277)
bought & sold	0.237 (0.298)	1.409*** (0.266)	-0.343 (0.232)	-0.475** (0.216)	-0.339 (0.249)	-0.536** (0.236)	-0.115 (0.161)	0.094 (0.171)	0.068 (0.081)
Observations	117	117	117	117	117	117	117	117	117
Adjusted R^2	0.073	0.205	0.100	0.123	0.091	0.109	0.248	0.229	0.216

OLS model with standardized version of reason as dependent variable on demographics.
Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4 Robustness: Principal Component of Reasons for Non Participation and Demographics (Parsimonious model)

	(1) Risk Aversion	(2) Risk Aversion	(3) Risk Aversion	(4) Risk Aversion	(5) Risk Aversion	(6) Risk Aversion
age	0.007*** (0.001)	0.007** (0.003)	0.009* (0.005)	0.009* (0.005)	0.008** (0.004)	0.010* (0.006)
Experience (k=1)		-1.137 (8.035)				
Experience (k=1.4322)			-6.324 (13.596)			
Experience (k=1.325)				-4.524 (11.808)		
Experience (k=1.166)					-2.539 (9.712)	
Experience (k=1.5)						-7.648 (14.887)
Observations	812	527	527	527	527	527
Adjusted R^2	0.071	0.034	0.034	0.034	0.034	0.034

OLS model with principal component as dependent variable on demographics.

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5 Robustness: Principal Component of Reason No Participation and Demographics

	(1) Risk Aversion	(2) Lack of Resources	(3) Lack of Savings
age	0.005*** (0.001)	-0.002** (0.001)	
female		0.059** (0.029)	
unemployed			0.059 (0.038)
< 1500			0.151*** (0.040)
Observations	880	892	896
Adjusted R^2	0.067	0.024	0.036

OLS model with above average reason as dependent variable on demographics.

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$