Online Supplemental Materials

Table S1

Factorial structure and longitudinal measurement invariance of the psychometric scales adopted in the current study

Scale	*Model*	*N*	χ^2	*df*	*p*	*RMSEA [90% CI]*	*CFI*	*SRMR*	$\Delta\chi^2$	*Δdf*	*p*	*ΔCFI*
Family financial socialization	Time 1	2092	152.67	17	<.001	.062 [.053 .071]	.968	.038				
	Time 2	1525	150.84	17	<.001	.072 [.062 .083]	.964	.050				
	Time 3	967	78.08	17	<.001	.061 [.048 .075]	.975	.043				
	Configural	2094	1100.14	210	<.001	.045 [.042 .048]	.938	.125				
	Weak	2094	1112.05	220	<.001	.044 [.041 .047]	.938	.125	16.04	10	<.001	0
	Strong	2094	1191.63	230	<.001	.045 [.042 .047]	.933	.125	83.09	10	<.001	-0.005
	Strict	2094	1259.59	246	<.001	.044 [.042 .047]	.929	.127	73.20	16	<.001	-0.004
Financial attitudes	Time 1*	2089	257.27	8	<.001	.122 [.110 .135]	.920	.049				
	Time 2*	1540	202.77	8	<.001	.126 [.111 .141]	.920	.049				
	Time 3*	982	83.26	8	<.001	.098 [.079 .117]	.948	.041				
	Configural	2093	860.82	111	<.001	.057 [.053 .060]	.923	.061				
	Weak	2093	917.32	121	<.001	.056 [.053 .059]	.918	.063	56.19	10	p<.001	-0.005
	Strong	2093	1210.26	131	<.001	.063 [.060 .066]	.889	.068	335.64	10	p<.001	-0.029

	Freeing item 6's intercept at wave 1	2093	974.34	130	<.001	.056 [.052 .059]	.913	.065	54.79	9	p<.001	-0.005
	Strict	2093	1213.84	141	<.001	.060 [.057 .063]	.890	.078	208.85	11	p<.001	-0.023
	Freeing item 4's residual at wave 1	2093	1082.28	140	<.001	.057 [.054 .060]	.903	.072	102.67	10	p<.001	-0.01
Financial behaviors	Time 1*	2090	226.88	8	<.001	.114 [.102 .127]	.873	.055				
	Time 2*	1528	114.32	8	<.001	.093 [.079 .109]	.920	.042				
	Time 3*	974	65.29	8	<.001	.086 [.067 .106]	.940	.038				
	Configural	2094	636.95	111	<.001	.048 [.044 .051]	.905	.057				
	Weak	2094	653.34	121	<.001	.046 [.042 .049]	.903	.058	16.40	10	<.001	-0.002
	Strong	2094	775.69	131	<.001	.048 [.045 .052]	.882	.062	124.40	10	<.001	-0.021
	Freeing item 6's intercept at wave 2	2094	720.99	130	<.001	.047 [.043 .050]	.893	.061	68.07	9	<.001	-0.01
	Strict	2094	798.86	141	<.001	.047 [.044 .050]	.881	.072	82.55	11	<.001	-0.012
	Freeing item 1's residual at wave 1	2094	779.31	140	<.001	.047 [.044 .050]	.884	.068	59.08	10	<.001	-0.009
Financial well-being**	Configural	2096	21.16	15	.132	.014 [.000 .027]	.999	.017				
	Weak	2096	23.67	19	.209	.011 [.000 .023]	.999	.018	2.36	4	.181	0
	Strong	2096	138.92	23	<.001	.049 [.041 .057]	.977	.023	118.84	4	<.001	-0.022

Freeing item 1's intercept at wave 3	2096	57.97	22	<.001	.028 [.019 .037]	.993	.020	36.97	3	<.001	-0.006
Strict	2096	73.82	27	<.001	.029 [.021 .037]	.991	.021	15.63	5	.003	-0.002

Note. χ^2 = chi-square test; *df* = degree of freedom; RMSEA = Mean Square Error of Approximation (RMSEA); CI = Confidence Interval; CFI = Comparative Fit Index; SRMR = Standardized Root Mean Square Residual (SRMR).
*To make this model fitting well the data, we had to add a correlation between item 1 and item 2 residuals.
** Financial well-being model at each single time point corresponded to a saturated model (as the scale is composed by three items only).

Items of the Family Financial Socialization Scale, separately for each factor:

Positive Financial Communication

- Since coming to college, my parent(s) often talk to me about the importance of financial security for my later life.
- My parent(s) have carefully explained to me how to establish my credit rating.

Negative Financial Communication

- Since coming to college, my relationship with my parents is not good because of money issues.
- Since coming to college, my parents do not approve of my spending patterns in general.
- Since coming to college, I argue a lot with my parent(s) about money matters.

Parental Financial Modeling

- I make financial decisions based on what my parents have done in similar situations.
- When it comes to managing money, I look to my parent(s) as my role models.
- My parent(s) are role models for me about how to manage financial matters.

Descriptive statistics

After verifying that the scales of interest (parental financial socialization, financial attitudes, financial behavior, and financial well-being) were invariant over time (see Table S1), we saved the invariant factor scores (positive financial communication, negative financial communication, parental financial modeling, financial attitudes, financial behavior, and financial well-being) and used them for the subsequent analyses. First, we estimated descriptive statistics (mean and deviation standard) of both observed (objective and subjective financial knowledge) and latent (factor scores) variables for each time point (see Table S2). All factors scores at time 1 l had a mean of zero because of the constraints required in a longitudinal measurement invariance model to correctly identify the model. The means of time 2 and time 3 factors scores had no constraints, so they were free to vary. Their values can be interpreted as higher (positive values) or lower (negative value) than the relative factor score at time 1. In Table 1, we report which means were significantly different ($p < .001$) from Wave 1 means.

Table S2.

Descriptive statistics of variables under investigation

Variable	M (SD)		
	Wave 1	Wave 2	Wave 3
Positive financial communication	0.000 (0.83)	0.063 (0.88)	-0.231 (0.76)***
Negative financial communication	0.000 (0.93)	-0.059 (0.80)	-0.163 (0.59)***
Parental financial modeling	0.000 (0.98)	-0.022 (1.01)	-0.304 (0.90)***
Financial attitude	0.000 (0.94)	-0.410 (0.92)***	-0.247 (0.77)***
Objective financial knowledge	9.65 (2.55)	10.41 (2.49)***	11.20 (2.17)***
Subjective financial knowledge	3.14 (0.81)	3.52 (0.85)***	3.46 (0.90)***
Healthy financial behavior	0.000 (0.86)	-0.356 (0.76)***	-0.050 (0.81)

Financial well-being	0.000 (0.92)	-0.203 (0.81)***	0.042 (0.72)

***indicates means that were significantly (p <.001) different from Wave 1's mean.

Descriptive analyses indicate that the both purposive (parent-child financial communication) and implicit (parental financial modeling) family financial socialization processes did not change between Wave 1 (when students were freshmen) and Wave 2 (two years later). Instead, all showed a decrease at Wave 3 (five years after Wave 1). In contrast, the mediating variables in the model (financial attitudes, objective and subjective financial knowledge) showed different trends over time. Specifically, financial attitudes showed a strong decline between Wave 1 and Wave 2 and a partial recovery at Wave 3 although not to the Wave 1 level. Objective financial knowledge was the only variable under investigation presenting a linear increase, in parallel with children aging. The same trend did not register for the subjective side of the construct. While objective financial well-being increased between Waves 2 and 3, subjective financial knowledge slightly decreased. Finally, the two end outcome variables presented a similar longitudinal trend. Both healthy financial behavior and financial well-being decreased between Wave 1 and Wave 2, but by Wave 3, both behavior and well rebounded, i.e. the Wave 1 and Wave 3 levels of those constructs were not significantly different.

Table S3

Stability and cross-lagged effects of the CLPM

		Time t+1							
		1	2	3	4	5	6	7	8
Time t	1. Positive financial communication	**.809***	.003	-.153* (-.286*)	.004	.080	.057***	.031	-.027
	2. Negative financial communication	.047* (-.088*)	**.445***	.135*	-.050	-.158	.013	-.001	-.013
	3. Parental financial modeling	-.167*	.034	**.830***	-.018	-.161	-.082*	-.011	.026
	4. Financial attitudes	-.002	-.013	-.002	**.336***	.166	.034	.006	.022
	5. Objective financial knowledge	.002	-.013*	.005	.024*	**.280***	.008	.001	.016*
	6. Subjective financial knowledge	.009	.013	.012	.013	.144	**.394***	.011	.024
	7. Financial behaviors	.031*	-.001	.042	.131*	-.079	.094*	**.563***	.044
	8. Financial well-being	.045*	-.044*	.060*	.057*	.038	.007	.059*	**.549***

Note. Unstandardized values are reported. Values in bold correspond to stability effects.

In parenthesis we reported t=2 effects, when they are not invariant to t=1 effects.

* p<.001

Table S4

Dependent variables' residual variance and correlations among residuals within the same time point (at time 2 and time 3)

	1	2	3	4	5	6	7	8
1. Positive financial communication	.299*							
2. Negative financial communication	-.002	.420* (.222*)[1]						
3. Parental financial modeling	.308*	-.085* (-.041*)[2]	.373*					
4. Financial attitudes	.035*	-.046*	.040*	.558*				
5. Objective financial knowledge	-.034	-083*	.023	.080	4.839*			
6. Subjective financial knowledge	.032*	-.031*	.027	.078*	.098	.582*		
7. Financial behaviors	.040*	-.030*	.037*	.159*	.031	.101*	.383*	
8. Financial well-being	.020	-.066*	.036*	.073*	.025	.042*	.098*	.325*

Note. Unstandardized values are reported. * $p < .001$. Residual variances are reported on the diagonal. Correlations between variables within the same time point are reported under the diagonal.

[1] Negative financial communication's residual variance at time 2 (.420) is higher than its residual variance at time 3 (.222)

[2] The correlation between "negative financial communication" and "parental financial modeling" residuals at time 2 (-.085) is higher than time 3 (-.041)

Table S5

Correlations among variables at time 1

	1	2	3	4	5	6	7
1. Positive financial communication							
2. Negative financial communication	.069*						
3. Parental financial modeling	.484*	-.228*					
4. Financial attitudes	.092*	-.152*	.128*				
5. Objective financial knowledge	-.041	-.165	-.038	.294*			
6. Subjective financial knowledge	.118*	-.087*	.082*	.110*	.274*		
7. Financial behaviors	.176*	-.077*	.175*	.279*	.039	.224*	
8. Financial well-being	.028	-.284*	.225*	.055	.050	.085*	.122*

Note. Unstandardized values are reported.

Table S6

Effect of control variables (gender, ethnicity, SES) on variables under investigation

Predictor at wave 1:	Gender			Ethnicity			Family of origin's SES		
Outcome at wave:	1	2	3	1	2	3	1	2	3
Positive financial communication	.079	.111*	.014	-.119	.005	-.022	.124*	.056*	.066*
Negative financial communication	-.064	-.107*	-.050	-.027	.036	-.050	-.017	.018	.008
Parental financial modeling	.031	.154*	.019	-.028	-.005	-.019	.268*	.079*	.050
Financial attitudes	.122	.068	.104*	.039	.021	.060	.043	.014	.018
Objective financial knowledge	-.184	-.486*	-.149*	.272	.398	.296	-.171	-.081	-.037
Subjective financial knowledge	-.222*	-.149*	-.076	.102	.039	.015	-.022	-.037	.028
Financial behaviors	-.118*	-.022	-.023	.047	-.026	.060	.049	.004	.019
Financial well-being	-.227*	-.060	-.005	.013	.001	.023	.259*	.054	.008

Note. Unstandardized values are reported. * p <.001

Gender (0 = male ; 1 = female), ethnicity (0 = non-white, 1= while), family of origin' SES (0 = low, 1 = medium, 2 = high).

Table S7

Indirect effect of time 1 predictor on time 3 outcomes via time 2 mediators

Outcome:	Financial behavior at time 3			Financial Well-being at time 3		
Indirect effect via time 2 mediator:	FA	OFK	SFK	FA	OFK	SFK
Positive financial communication at time 1	.000	.000	.001	.000	.001	.001
Negative financial communication at time 1	.000	.000	.000	-.001	-.003	.000
Parental financial modeling at time 1	.000	.000	-.001	.000	-.003	-.002

Note. Unstandardized values are reported. * p <.001

FA = Financial attitude; OFK = Objective Financial Knowledge; SFK: Subjective Financial Knowledge.