The Role of Consumer Financial Confidence on Financial Well-Being

Nilton Porto, University of Rhode Island[1]
Jing Jian Xiao, University of Rhode Island[2]

Objective

In modern societies, financial well-being is one of the most important components of overall happiness. The improvement of consumer well-being is a worthy undertaking for consumer financial policymakers, researchers, educators, and practitioners. However, the concept is relatively new, and its components and determinants are not yet fully understood. This study investigates the relationship between financial confidence and financial well-being (FWB). Financial confidence is measured by the interplay between respondents' estimation of their own financial knowledge (subjective financial knowledge) and actual survey scores from financial knowledge questions (objective financial knowledge). Results from this investigation help explain one of the paradoxes found in the relationship between income and happiness, where some consumers with low- or moderate-income report high levels of financial well-being while some high-income consumers report low levels of financial well-being (Joo and Grable 2004; Vera-Toscano, Ateca-Amestoy and Serrano-Del-Rosal 2006).

Financial decisions are often complex and infrequent, involving lengthy waiting times until the actual feedback is received. Financial knowledge is a significant building block of financial capability, the scaffold to making optimal financial decisions. Objective and subjective factors play important roles in overall financial knowledge: how much I know and how much I think I know matters when comparing loan options, when planning to save for emergencies and retirement, and when making several other financial choices. Financial confidence arises from a (mis)alignment between objective and subjective knowledge.

This study uses data from the 2016 CFPB National Financial Wellbeing Survey to examine the association between financial confidence and financial well-being. Financial confidence is measured by the interplay between self-assessed subjective financial knowledge and measured objective financial knowledge, following a similar framework used in Porto and Xiao (2016). The main analysis was performed using four levels of consumer financial literacy confidence:

A. *Overconfident Consumers*: high subjective knowledge, low objective knowledge

B. *Underconfident Consumers*: low subjective knowledge, high objective knowledge.

C. *Naïve Consumers*: low levels of both subjective and objective knowledge

D. *Competent Consumers*: high levels of both subjective and objective knowledge

Significance

This study has two hypotheses. First, *Overconfident* and *Competent* consumers will display higher levels of financial well-being than their Underconfident and Naïve counterparts. The belief that one possesses sufficient financial knowledge to properly manage their financial lives should lead to higher self-assessment, even if this belief is somewhat flawed. While *Competent* consumers can claim higher levels of financial well-being based on their high knowledge and confidence, *Overconfident* consumers might be overstating their financial well-being based on a biased assessment of their own financial knowledge. This bias can create a blind spot where the *Overconfident* consumer may make harmful financial choices due to subpar financial knowledge; this choice might not directly affect their current financial well-being but can have costly future consequences. Examples here might include trading stock too often and earning lower returns (Barber and Odean 2001), lack of proper insurance, or not seeking

[1] Nilton Porto (nilton_porto@uri.edu), Associate Professor, Department of Human Development and Family Science
[2] Jing Jian Xiao (jjxiao@uri.edu), Professor, Department of Human Development and Family Science

reliable financial advice. As a result, overconfident consumers may need help understanding their limitations (de-biasing) or mechanisms in place to suppress the bias (mandated requirements).

On the other side of the spectrum, this study hypothesizes that *Underconfident* or *Naïve* consumers will rate themselves at the low end of financial well-being. The *Naïve* consumer has a precise estimation of their own knowledge and confidence; this type of consumer could benefit from more financial education and/or financial advice to become more informed. However, the *Underconfident* consumers might be missing valuable opportunities to improve their financial statuses and might need aid in building their confidence. For instance, *Underconfident* consumers might overlook suitable investment opportunities like stocks and mutual funds.

Financial capability is an important determinant of people's financial well-being (Xiao and Porto, 2017). Financial capability is a toolset that includes financial knowledge, skills, and behaviors that consumers can employ to better manage their financial lives. Previous literature points to a positive correlation between financial capability and how consumers assess their own financial welfare (Xiao, Chen and Chen 2014; Taylor, Jenkins, and Sacker 2009). This assessment of one's financial situation has been called financial satisfaction, financial happiness, or financial/economic well-being. This study uses the comprehensive definition operationalized by the Consumer Financial Protection Bureau (CFPB) in its 2016 National Financial Well-Being Survey. According to CFPB, "financial well-being can be defined as a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life" (CFPB p. 18, 2015).

Based on the above discussion, this study examines the relationship between different levels of financial confidence and financial well-being while controlling for other financial capability factors.

Methods

The data set used is the 2016 National Financial Well-Being Survey, commissioned by the Consumer Financial Protection Bureau (CFPB). The financial well-being scale score is the dependent variable of interest, while measurements of subjective and objective financial knowledge are primary independent variables. The different levels of financial confidence will be based on main interactions between subjective financial knowledge (how much you think you know from the survey item *How would you assess your overall financial knowledge?*) and objective financial knowledge (how much you know based on scores from the Lusardi & Mitchell quiz and the Knoll & Houts quiz included in the survey). Other financial variables used in this analysis include financial behaviors and financial skills, representing other determinants of financial capability plus sociodemographic indicators as controls.

The four clusters of confidence were produced using two different approaches. In the manual cluster approach, scores of both objective and subjective financial knowledges were split above and below the mean to create four levels of financial confidence. The cluster analysis method also utilizes the means of objective and subjective financial knowledge as references to generate four clusters based on how close each individual observation is to the means of interest. Regardless of the method, the final four groups were roughly of similar size and same ordering, except for the underconfident group, which grew visibly. By using this dual identification process as robustness check for each other, this study finds that four distinct levels of financial confidence exist in the data.

Results

Table 1 shows descriptive statistics of the four levels of financial confidence for each clustering approach. As hypothesized, competent respondents display the highest level of financial well-being while those that are considered naïve have the lowest scores. This supports the idea that both groups have a good understanding of their current financial knowledge and, for better or worse, their potential financial situation. Over and underconfident respondents exhibit similar levels of financial well-being in the mean split method, but the gap is wider when using the mean proximity approach.

The means of the two financial capability factors – financial behaviors and financial skills – are similar across both approaches, reinforcing the chosen identification strategy of grouping financial confidence levels. Objective and subjective financial knowledge means are displayed to help the reader understand the characteristics of the financial confidence clusters. The most noticeable difference here is how the financial knowledge scores of the underconfident group drop from the mean split to the mean proximity method.

Table 1.
Levels of Financial Confidence

Manual Clustering Mean Split	Overconfident mean	sd	Underconfident mean	sd	Naïve Mean	sd	Competent mean	sd
Financial Well-being (range 14-95)	*54.8*	*13.2*	*56.6*	*12.1*	*48.7*	*12.3*	*62.2*	*13.2*
Financial Capability								
Financial Behaviors	43.6	6.92	41.9	6.19	37.8	8.06	45.5	6.19
Financial Skills	53.3	11.6	45.9	8.06	41.8	10.1	56.6	11.1
Fin. Confidence								
Obj. Fin. Knowledge	9.88	1.22	12.2	0.43	8.75	1.88	13.2	1.08
Subj. Fin. Knowledge	5.24	0.52	3.95	0.21	3.39	0.88	5.53	0.67
N	1,434		333		1,961		2,666	

Cluster Analysis Mean Proximity	Overconfident mean	sd	Underconfident mean	sd	Naïve mean	sd	Competent mean	sd
Financial Well-being (range 14-95)	*54.4*	*12.1*	*42.1*	*13.3*	*48.2*	*11.7*	*62.0*	*13.5*
Financial Capability								
Financial Behaviors	42.3	6.71	32.7	9.22	37.7	7.94	45.7	5.98
Financial Skills	49.3	10.1	33.9	11.3	42.5	10.3	57.1	11.2
Fin. Confidence								
Obj. Fin. Knowledge	10.5	1.14	6.24	1.87	8.29	1.42	13.1	1.21
Subj. Fin. Knowledge	4.62	0.62	1.62	0.61	3.58	0.63	5.57	0.69
N	2,173		275		1,132		2,762	

Source: 2016 CFPB Financial Well-being Survey

Since some differences emerge in the descriptive table, Table 2 presents results based on both approaches to financial confidence. Nominally, Table 2 is also revealing a robustness check by comparing the results from the mean split and the mean proximity approaches and find the same direction of coefficients in all groups. Compared to the competent group, all other three levels of financial confidence are associated with lower financial well-being scores. Further, the two financial capability factors - behaviors and skills – are positively associated with financial well-being.

Table 2.
Ordinary Least Squares, DV Financial Well-Being Score

	Manual Clustering (1)	(2)	Cluster Analysis (3)	(4)
	Financial well-being score b/se	Financial well-being score b/se	Financial well-being score b/se	Financial well-being score b/se
Fin. Confidence (ref: Competent)				
Overconfident	**-5.4690*****	**-1.7708****	**-3.9493*****	**-1.1541***
	(0.438)	**(0.430)**	**(0.422)**	**(0.401)**
Underconfident	**-0.8293***	**-0.6088**	**-7.2204*****	**-2.1628***
	(0.322)	**(0.312)**	**(0.658)**	**(0.715)**

Naïve	**-5.3835*** (0.315)**	**-1.7446** (0.389)**	**-6.0193*** (0.471)**	**-1.5687* (0.537)**
Fin. Behaviors	0.6065*** (0.041)	0.4301*** (0.036)	0.5953*** (0.041)	0.4236*** (0.036)
Fin. Skills	0.2358*** (0.020)	0.2697*** (0.017)	0.2142*** (0.018)	0.2685*** (0.017)
Gender		0.1901 (0.355)		0.2528 (0.353)
White		0.1358 (0.481)		0.1921 (0.488)
Married		0.7769* (0.268)		0.7938* (0.277)
College		0.6425** (0.182)		0.7429** (0.188)
Age Controls	No	Yes	No	Yes
Income Controls	No	Yes	No	Yes
Constant	21.2101*** (1.178)	16.2937*** (1.076)	22.5885*** (1.320)	16.1767*** (1.252)
Observations	6,385	6,385	6,336	6,336
Adjusted R^2	0.345	0.453	0.339	0.454

Source: CFPB 2016 National Financial Well-Being Survey
Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Implications and Contributions

Findings from this study have theoretical implications for researchers, policymakers, and financial educators. This study helps reveal the building blocks needed to generate a more comprehensive understanding of financial confidence and its relationship with financial well-being. Regardless of the method employed to create the four clusters of financial confidence, the patterns are similar across the board. Competent consumers profit from the highest levels of objective and subjective financial knowledge to build their financial well-being. The Naïve group recognizes their shortcoming in financial knowledge, which appears to be hurting their financial well-being and, possibly, their financial lives. Standing in the middle, overconfident consumers score the second best on their financial well-being; their result might be a true assessment of their financial lives or another overestimation based on their biased judgment.

Results also have implications for practitioners in financial education and services. When creating financial education programs and interventions, educators and advisors will have a better understanding of not just their clients' different levels of financial well-being but also how to solve mismatches between objective and subjective financial knowledge. The knowledge gained from this study may help program designers to better balance elements of knowledge acquisition and elements to foster financial confidence to deliver more effective consumer finance interventions.

Financial educators and financial counselors may use findings to deliver more effective programs tailored to clients' own level of financial confidence and financial knowledge. For underconfident consumers, more feedback about their current financial knowledge might be just as beneficial as more financial education. To build their confidence, these consumers might benefit from a program that tracks and displays their knowledge improvements. The naïve group might reap the most rewards from an effective and comprehensive financial education program due to their lower levels of financial knowledge.

While the current study does not assess the impact of financial overconfidence outside financial well-being, previous work has shown that overconfident consumers might be making decisions that hurt their financial lives, such as overtrading or forsaken financial advice. Overconfident consumers might benefit from timely and realistic feedback about their financial knowledge to, hopefully, debias their knowledge estimation. While having a sunnier financial outlook is not by itself detrimental, more research is needed to gauge if this overconfidence is leading not just to higher levels of financial well-being (a positive) but also other less desirable actions and preferences.

References

Barber, Brad M., and Terrance Odean. "Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment." *The Quarterly Journal of Economics* 116, no. 1 (2001): 261-292.

Consumer Financial Protection Bureau. (2015). Financial Well-being: The Goal of Financial Education. CreateSpace Independent Publishing Platform. https://books.google.com/books?id=hdtErgEACAAJ

Forbes, James, and S. Murat Kara. "Confidence Mediates How Investment Knowledge Influences Investing Self-Efficacy." *Journal of Economic Psychology* 31, no. 3 (2010): 435-443.

Joo, So-Hyun, and John E. Grable. "An Exploratory Framework of the Determinants of Financial Satisfaction." *Journal of Family and Economic Issues* 25, no. 1 (2004): 25-50.

Lusardi, Annamaria, and Olivia S. Mitchell. "Planning and Financial Literacy: How Do Women Fare?" *American Economic Review* 98, no. 2 (2008): 413-17.

Porto, Nilton, and Jing Jian Xiao. "Financial Literacy Overconfidence and Financial Advice Seeking." *Journal of Financial Service Professionals* 70, no. 4 (2016).

Taylor, Mark, Stephen Jenkins, and Amanda Sacker. "Financial Capability and Wellbeing: Evidence from the BHPS." *Financial Services Authority Occasional Paper* 34 (2009).

Vera-Toscano, Esperanza, Victoria Ateca-Amestoy, and Rafael Serrano-Del-Rosal. "Building Financial Satisfaction." *Social Indicators Research* 77, no. 2 (2006): 211-243.

Xia, Tian, Zhengwei Wang, and Kunpeng Li. "Financial Literacy Overconfidence and Stock Market Participation." *Social Indicators Research* 119, no. 3 (2014): 1233-1245.

Xiao, Jing Jian, and Nilton Porto. "Financial Education and Financial Satisfaction: Financial Literacy, Behavior, and Capability as Mediators." *International Journal of Bank Marketing* 35, no. 5 (2017): 805-817.

Xiao, Jing Jian, Cheng Chen, and Fuzhong Chen. "Consumer Financial Capability and Financial Satisfaction." *Social Indicators Research* 118, no. 1 (2014): 415-432.

