

# Perceived Financial Needs, Income Sources, and Subjective Financial Well-Being in an Emerging Market

Halil Kiyamaz,<sup>a</sup> and Belma Öztürkkal<sup>b</sup>

*This study investigates perceived financial needs and subjective financial well-being using data from a national survey of 2,567 households in Turkey. Financial needs are measured by consumer perceived ability to meet current living expenses in the short-term as well as their assessment for the retirement security in the long-term. We also investigate how income sources are related to subjective financial well-being. Findings show that households' daily concerns including the inability to meet short-term expenses including healthcare, daily living expenses (food and utilities), and the inability to maintain the existing living standard are highly significant factors in explaining their subjective financial well-being. We also find that having enough income during retirement and ability to find a job in the future are positively related to subjective financial well-being. Finally, when households' incomes are from work, rental properties, family, and pension, they feel more financially secure.*

*Keywords: emerging market, financial well-being and assessment, risk, survey, Turkey*

Economic uncertainty can change human behavior. For example, during the recent global economic crises as worldwide credit markets were tightened, we have witnessed pressure on firms and individuals. This, in turn, influenced both subjective financial well-being and their saving and spending behaviors. Financial conditions have been proposed to influence consumer decisions through subjective financial well-being that is closely tied to households' adequacy assessment of financial situation as well as financial stability (Hsu, Tam, & Howell, 2015; Islam, Wills-Herrera, & Hamilton, 2009; Poduska, 1992; Vera-Toscano, Ateca-Amestoy, & Serrano-Del-Rosal, 2006).

To feel financially secure, one's lower level needs must be satisfied, at least partially, before it can move to higher level needs. Lower level needs include households' daily concerns, such as the ability to pay for current living expenses and credit card payments or debt, which will have priority on their financial assessments than higher level needs such as safety-related concerns (i.e., retirement). Physiological needs can be satisfied by using one's income and earnings to provide basic survival provisions

(Poduska, 1992) and associated basic needs (Diener & Seligman, 2004).

In the next level, desired savings and wealth can satisfy safety needs for security to cover for future expenses (i.e., retirement decisions). So, the desire for financial stability, such as depositing money into a savings account, may be a possible reflection of safety needs. Xiao and Noring (1994) pointed out that the ability to provide food and shelter allows higher order needs to emerge, including saving for future needs such as retirement. To some extent, financial assessments follow a pecking order, with future concerns having more significant impact on households' assessments once their daily finances are met. For example, Xiao and Noring (1994) also showed the changing motives associated with marital status, home ownership, family size, employment status, wealth, assets, and debt categories.

Based on a national survey of households in Turkey, this study expands on the existing literature on the perceived financial needs and investigates how households feel about their financial well-being. Our proxy for the subjective financial well-being of survey participants is based on

<sup>a</sup>Bank of America Professor of Finance, Crummer Graduate School of Business, Rollins College, Winter Park, FL 32789. E-mail: hkiymaz@rollins.edu  
<sup>b</sup>Associate Professor of Finance, Department of International Trade and Finance, Faculty of Management, Kadir Has University, Cibali 34083 Istanbul, Turkey. E-mail: belma.ozturkkal@khas.edu.tr

survey participants perceived financial needs of whether they could meet their financial obligations during the most recent month. We investigate households' subjective financial well-being through their views of short-term living expenses as well as their assessment for their retirements in the long-term.

Our study contributes to the literature in the following ways. To our knowledge, this is the first study that examines households' financial assessments using both short-term and long-term concerns using a detailed national survey conducted in Turkey. Second, we investigate how households' subjective financial assessment is related to present and future sources of income. Third, this study provides evidence from a fast-growing volatile emerging market, where per capita income and availability of financial and retirement instruments increased during the last decade. This may have policy implications for policy makers as it provides an avenue for further investigation of spending/saving behaviors of households in this environment. Fourth, a unique data set is obtained through the survey of 2,567 households in line with Turkish Statistical Institute (TUIK) national surveys of regional and cultural characteristics of the respondents and includes both objective and subjective attributes of consumers spending/saving behaviors.

The rest of the manuscript is organized as follows. The next section provides a literature review while the following section outlines data, sample characteristics, and methodology. The "Empirical Results" section reports the empirical findings and interpretation of results. The final section concludes the study.

### **Literature Review and Hypotheses**

The relationship between perceived financial needs and subjective financial well-being continues to get the attention of academics and practitioners. Literature also investigates how financial well-being is tied to saving and spending behaviors of households. Among these studies, Poduska (1992) proposed the importance of Maslow's (1943) hierarchy of needs from the financial point of view, where first three levels are deficit needs, and higher two in the hierarchy are esteem needs. While there are multiple variables used to explain financial well-being, households' income is reported most often as an important variable influencing financial well-being in developed economies. For example, Xiao and O'Neill (2018) link propensity to plan to

socioeconomic factors, where propensity to plan contributes to subjective well-being. Shin and Kim (2018) point the importance of perception of income on crisis periods for the decision to save. Diener and Seligman (2002) posed that financial satisfaction is a mediator between income and happiness, while life satisfaction was influenced by many factors other than income, income appears to be a major input. Diener and Seligman (2004) further found that a change in income level once a threshold is reached, is lightly correlated with life satisfaction. Vera-Toscano et al. (2006) used a self-reported measure of welfare and analyzed individual financial satisfaction by considering both individual's adaptation to previous and future income levels, and social comparisons as individual's concern for their peer's income. Hsu et al. (2015) argued that consumers' perception of their financial standing influences their purchase plans. Findings indicate that wealth is the most important economic indicator of financial well-being. This is contrary to the view that income or debts are more relevant measures of well-being.

Among studies on emerging economies, Islam et al. (2009), using a sample of 576 individuals in Brazil, reported that subjective well-being was closely related to income level. Hayo and Seifert (2003) measured subjective economic well-being in Eastern European countries and associate it with life satisfaction. Economic well-being is positively affected by education, wealth, and income and is negatively affected by being unemployed and living in crowded neighborhoods. Johnson and Krueger (2006) showed the perceived association between income and life satisfaction in conjunction with the financial situation's association. The study reported a low correlation between actual and perceived financial resources. Hence, life satisfaction can be achieved through life by controlling and changing financial conditions over the life cycle. Li, Montalto, and Geistfeld (1996) found only 46% of the total sample find themselves with increasingly adequate resources for retirement and as they age and experience an income increase. Furthermore, they provided evidence that pension ownership had higher influence on the perception of adequate retirement assets. Akerlof and Shiller (2016) stated that the importance and manipulation of the can affect the financial decisions. Akerlof and Shiller (2010) reported that people under save and have different mental frames and are more vulnerable at older ages.

Asebedo and Seay (2014) reported accomplishment, religiosity, and purpose in life and optimism increased retirement satisfaction. Xiao (1996) found the positive effects of education, being married, being older than 64, being White and income on investment assets such as savings and stocks. More recently, Davutyan and Ozturkkal (2016) found that income, education, marital status, and region within country strongly correlate with saving and borrowing decisions in Turkey.

There are also studies taking a longer view when analyzing financial well-being, particularly related to retirement choices. For example, Xiao and Noring (1994) reported differences in the perceived saving motives regarding the household's home ownership, marital status, number of children, life cycle stage, employment status, income, asset and debt categories, net worth, and the head's gender and education. Lee and Hanna (2015) examined the link between saving goals and saving behavior using Maslow's hierarchy. This study also offers insights into how saving goals categorized through Maslow's levels of need affects the likelihood of saving by households. Findings show a positive relationship between more personalized saving goals and saving.

Demirguc-Kunt, Klapper, and Panos (2016) examined how adults save for old age. On average, men were slightly more likely than women to save, but the gender gap was deeper in developing countries. Vitt (2004) reported more than half of U.S. working adults are not planning for retirement and almost half of them are not saving for retirement. The consumer decision-making process includes sufficiency, sustainability, and appropriateness with the requirement of financial education in goal setting.

Cagetti (2003) reported wealth accumulation is driven mostly by precautionary savings at the beginning of the life cycle, whereas savings for retirement purposes become significant only closer to retirement. Watson and McNaughton (2007) showed that women are more risk averse than men. Gender, age, and income are important to determine risk preferences. Bussolo, Schotte, and Matysin (2015) used Russian Survey data for problems of aging and saving rate decreases even though younger people are saving more than the elderly for retirement and saving rate increased to 7%. In Russia, 24% of labor income contributed to pension plans as of 2012. Financial literacy also influenced households' saving behaviors. For example, Sass, Belbase, Cooperrider,

and Ramos-Mercado (2015) reported that the more investors were financially literate, the more sensitive they would be to retirement savings. Xu (2018) reports that financial education and habit formation increases behavioral tendencies like financial goal setting. Van Rooij, Kool, and Prast (2007) using Dutch household surveys reported that financial literacy enhanced retirement planning and saving, thereby financial well-being. Pfau (2018) points out that risks change dramatically in retirement as the risk bearing capacity of retirees are reduced. The author proposes the use of more efficient and successful retirement income plans. Guo and Finke (2018) report that participation in defined contribution plans improves wealth accumulation among household with self-control problems.

This study questions differences in demographical attributes on subjective financial well-being and we hypothesize that there are differences in income and retirement choices according to gender and education as well as those who are more inclined to save an unexpected income. Subjective financial well-being is hypothesized as being dependent on household's current sources of income such as concern about meeting healthcare expenses, paying rent, mortgage or daily living expenses, keeping the standard of living, having enough money at retirement, and household's concern about finding a job if the current one is lost. Subjective financial well-being is hypothesized as being dependent on household's retirement income sources. Overall, this study provides additional international evidence on perceived financial needs and subjective financial well-being from households in an emerging market.

The hypotheses are

H0: There are differences in income, retirement choices according to gender and education as well as those who are more inclined to save a windfall gain.

H1: Subjective financial well-being is dependent on household's current sources of income.

H2: Subjective financial well-being is dependent on household's retirement income sources.

## **Methodology**

### ***Data***

This article uses the sample data from a national survey covering the Turkish household sector. The survey was conducted by Konda Research and Consultancy, a public

opinion research and consultancy firm in December 2014 through face-to-face interviews with 2,567 individuals. Konda is a well-respected private polling agency in Turkey. Data was collected through interviews of field teams in Turkey. The sample represents 56 million adults above age 18. The survey questions elicited information about demographic, social, cultural, religious and retirement habits, and information about current income sources. The questions are categorized in two levels. The first set of questions elicit demographic information. The respondents were prompted to answer questions on gender, age, education, birthplace, the region of the survey, employment, urban or rural residence, household size, marital status, religiousness, and economic status. The second set of questions provides information on current income sources and future retirement income expectations. Table 1 provides summary statistics of the variables used.

The sample consists of individuals with a mean age of 41 and minimum/maximum age of 17 and 87, respectively. About half (52%) of the individuals surveyed are male, 41.1% of the individuals have a minimum of high school and or higher degrees. Only 15.5% of the individuals have a college degree or above. While a minority of the individuals (21%), are not worried about keeping up with their living standards, a majority (55%) are worried for the same purpose. This proportion is lower (41.4%) for rent or home, car installments and increases to (59.7%) when the question is raised for monetary concerns of retirement requirements. Sixty-three percentage do not think they will easily find a job if they lose their current one. Most respondents (61.1%) indicated that they would save a windfall gain of 1,000 TL (about US\$333) while 38.9% responded that they would spend it.

### Variables

Initially, we conduct mean difference tests on (a) gender of the participant (male vs. female), (b) education level (high school and above vs. less), and (c) savers and non-savers, to investigate whether they exhibit differences in responses.

In our analysis, *Well-being* is the subjective financial well-being; *Gender* is equal to 1 if male and 0 if female; *Edu* is equal to 1 if they received a high school education or 0 if they attended a higher level of educational; *Saving* is equal to 1 if the person thinks that he will save the windfall 1,000 TL received after all the debts paid, 0 if he will spend

**TABLE 1. Summary Statistics**

	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>
Well-being	2,550	0.75	0.43	0	1
Edu	2,542	0.41	0.49	0	1
Saving	2,567	0.61	0.52	0	1
Gender	2,563	0.52	0.5	0	1
Healthcare	2,540	2.57	0.98	1	4
Housing	2,512	2.85	1.06	1	4
LifeStd	2,527	2.52	0.98	1	4
LivingExp	2,525	2.69	0.99	1	4
RetireConcern	2,414	2.43	1.06	1	4
FindJob	2,567	0.14	0.35	0	1
CreditConcern	2,367	3.05	1.08	1	4
CreditPmt	1,201	0.39	0.49	0	1
IncomeWork	2,423	1.15	1.15	0	3
IncomeFamily	2,420	1.11	1.13	0	3
IncomeGovAid	2,334	0.14	0.45	0	3
IncomePension	2,331	0.41	0.86	0	3
IncomePrivPen	23,11	0.09	0.41	0	3
IncomeRental	2,326	0.14	0.44	0	3
IncomeInv	2,308	0.08	0.35	0	3
IncomeInherit	2,316	0.12	0.43	0	3
RetirePension	2,347	1.36	0.32	0	3
RetireWorkPT	2,261	0.60	0.54	0	3
RetirePrivPen	2,217	0.36	0.71	0	3
RetireRental	2,221	0.26	0.57	0	3
RetireInvest	2,194	0.16	0.45	0	3
RetireInherit	2,210	0.23	0.59	0	3

this money; *Creditconcern* is equal to 1 if they worried too much, 2 if they were worried, 3 if they were not too worried, 4 if they were not worried at all about being able to pay the credit card minimum payment; *Creditpmt* is equal to 1 if able to pay the credit card all or most payment, 0 if they were unable to make their credit card payments.

*Healthcare* is household's concern about meeting health-care expenses and equal to 1 if too much worried, 2 if worried, 3 not too much worried, 4 if not worried at all about being able to take care of the health spending; *Housing* is household's concern about paying rent or mortgage; *LifeStd* is household's concern about keeping the standard of living; *LivingExp* is household's concern about paying for daily living expenses (food and utilities).

*RetireConcern* is household's concern about having enough money at retirement; *FindJob* is household's concern about finding a job if the current one is lost and equal to 1 if the person thinks that he will most probably find a job, if they will lose current job, else 0. *IncomeWork* is if income from work is used for living expenses and is equal to 3 if the income from work is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *IncomeFamily* is income from elderly or spouse and is equal to 3 if the income from elderly family or wife/husband is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *IncomeGovAid* is income from government aid; *IncomePension* is income from state pension and is equal to 3 if the income from government aid is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *IncomePrivPen* is income from private pension plan and is equal to 3 if the income from private pension plan is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *IncomeRental* is income from rental property and is equal to 3 if the income from rental is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *IncomeInv* is income from investment account and is equal to 3 if the income from investment account is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *IncomeInherit* is income from inherited property and is equal to 3 if the income from inherited property or else is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost.

*RetirePension* is retirement income from government pension and is equal to 3 if at retirement the income from government pension for self or deceased wife/husband is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *RetireWorkPT* is retirement income from part time work; *RetirePrivPen* is retirement income from private pension plan and is equal to 3 if at retirement the income from private pension plan is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *RetireRental* is retirement Income from rental properties and is equal to 3 if at

retirement the income from rental is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *RetireInvest* is retirement income from investment accounts and is equal to 3 if at retirement the income from investment account is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost; *RetireInherit* is retirement income from inherited property and is equal to 3 if at retirement the income from inherited property or else is used for all my living cost, equal to 2 used for most of living cost, 1 used for part of living cost, 0 is not used for my living cost.

### Data Analyses

We, then, use the following models to test the perceived financial needs and how households feel about their financial well-being. Our proxy for the financial well-being of survey participants is based on survey participants' perceived financial needs of whether they could meet their financial obligations during the most recent month. We investigate subjective financial well-being through their views of current living expenses in the short-term as well as long-term concerns using a detailed national survey. We estimate the following models for short-term basic needs, long-term safety needs, sources of income to meet short-term obligation now, and sources of income at retirement. Our dependent variable, *Well-being*, is subjective financial well-being.

$$\text{Well-being} = f(\text{Healthcare}_i, \text{Housing}_i, \text{LifeStd}_i, \text{LivingExp}_i) + \varepsilon_{i,t} \quad (1)$$

$$\text{Well-being}_i = f(\text{RetireConcern}_i, \text{FindJob}_i) + \varepsilon_{i,t} \quad (2)$$

$$\text{Wellbeing}_i = f(\text{IncomeWork}_i, \text{IncomeFamily}_i, \text{IncomeGovAid}_i, \text{IncomePension}_i, \text{IncomePrivpen}_i, \text{IncomeRental}_i, \text{IncomeInv}_i, \text{IncomeInherit}_i) + \varepsilon_{i,t} \quad (3)$$

$$\text{Well-being}_i = f(\text{RetirePension}_i, \text{RetireWorkPT}_i, \text{RetirePrivPen}_i, \text{RetireRental}_i, \text{RetireInvest}_i, \text{RetireInherit}_i) + \varepsilon_{i,t} \quad (4)$$

## Empirical Results

### Preliminary Results

Our preliminary analysis includes conducting mean difference tests on (a) gender of the participant (male vs. female), (b) education level (high school and above vs. less), and (c) savers and non-savers across the sample to investigate whether they exhibit differences. Panels A through C of Table 2 report the results. The mean difference tests show there is a difference between all these groups.

Panel A indicates that male participants are more responsible for making their credit card payments and less worried about their inability to make minimum monthly payments than females. They also use more income from work to pay

for living expenses, use less income from elderly relatives to pay for living expenses, and plan to use more pension for living expenses at retirement compared to female participants of the survey.

Panel B reports the mean differences between education levels of participants. When we compare high school and better education to a lower education level, we find that educated participants are more responsible for making their credit card payments, less worried about their inability to make minimum monthly payments and about being able to have enough funds during retirement. We also note that the educated participants use more income from work to pay for

**TABLE 2. Test of Differences Between Means Respondents**

*Panel A: T-test of differences for gender (mean difference between male and female respondents)*

Gender Male = 1	Mean Difference	Satterthwaite Test Pr >  t
CreditPmt	0.048	0.0902
CreditConcerns	-0.0969	0.0299
RetireConcerns	-0.0375	0.3861
IncomeWork	0.875	0.0001
IncomeFamily	-1.0198	0.0001
IncomeGovAid	-0.0155	0.4088
RetirePension	0.087	0.0410

*Panel B: T-test for education of respondents (mean differences between high school/above education versus less education)*

Education High School and Above = 1	Mean Difference	Satterthwaite Test Pr >  t
CreditPmt	0.1350	4.7900
CreditConcerns	-0.2221	4.9200
RetireConcerns	-0.0930	0.0326
IncomeWork	0.4320	0.0001
IncomeFamily	0.0510	0.2719
IncomeGovAid	-0.0781	0.0001
RetirePension	0.0900	0.0351

*Panel C: T-test for saving tendency of respondents (mean differences between savers and non-savers)*

Save Windfall 1,000 TL = 1	Mean Difference	Satterthwaite Test Pr >  t
CreditPmt	0.0830	0.0040
CreditConcerns	0.0880	0.0572
RetireConcerns	-0.0629	0.1564
IncomeWork	-0.0910	0.0593
IncomeFamily	-0.0170	0.7219
IncomeGovAid	-0.0433	0.0304
RetirePension	-0.0086	0.8432

living expenses, use less government aid to pay for current living expenses, and plan to use more government pension for living expenses at retirement compared to less educated participants of the survey.

Panel C of Table 2 reports the mean difference between the savers and non-savers. The results show that those savers are more responsible for making their credit card payments, less worried about their inability to make minimum monthly payments than non-savers. They also use less income from work to pay for living expenses and use less government aid to pay for current living expenses compared to non-savers.

### **Regression Results**

We perform regression analyses by using multiple models. In our first model, we explore the impact of households' ability to meet its necessities on their financial well-being. Table 3 reports that necessity variables of *Healthcare*, *Housing*, *LivingStd*, and *LivingExp* are all statistically significant and have positive coefficients. Likelihood Ratio Chi-Square is 309.12 and is highly statistically significant. Having statistically significant positive coefficients indicate that when necessities are fulfilled, households' feel better about their financial well-being. This finding aligns with a hierarchy of needs as survey participants responded that they have a higher assessment of well-being as they can pay living expenses. Maslow's hierarchy of needs simply proposes that human needs must be satisfied at the lower level, at least partially, before it can move to the higher needs. At the lower level of needs are physiological needs that are related to the satisfaction of behaviors concerned with survival, such as food and hydration. For our purpose, households' daily concerns, such as the ability to pay for current living expenses and credit card payments or debt, will have priority on their financial assessments than their safety-related concerns (i.e., retirement). These findings are in line with those of Poduska (1992) and associated basic needs of Diener and Seligman (2004).

We, then, move to the safety needs that includes both actual and perceived desires for well-being and stability. The model approximates respondents' replies to questions about funding or income available to them at their retirements as well as their ability to find a job if needed. Table 4 reports that both retirement money sources expectation and perception of finding a job if current job is lost variables are positive and statistically significant at 1% level.

Likelihood Ratio Chi-Square is 121.14 and highly statistically significant. The findings show when the households expect to have enough money at retirement and higher perception of ability to find a job, if they lose current one, influences their thoughts on their subjective financial well-being positively.

In this level, desired savings and wealth can satisfy safety needs for security to cover for future expenses (i.e., retirement decisions). Thus, the desire for financial stability, such as depositing money into a savings or investment account, may be a possible reflection of safety needs. Xiao and Norling (1994) pointed out that the ability to provide food and shelter allows higher order needs to emerge, including saving for future needs (i.e., retirement).

Next, we investigate whether the source of income now and at retirement influence the subjective financial well-being. Table 5 reports subjective financial well-being and sources of income including income from work, family members, government aid programs, pension, private pension, rental properties, investments, and inherited. The participants were asked what source of income is used for living expenses currently. The answers range from 3 to 0 where a value of 3 is assigned when a source of income is completely used for living expenses and a 0 is assigned when income source is not used at all to pay for living expenses. The coefficients of *IncomeWork*, *IncomeFamily*, and *IncomePension* variables are statistically significant at 1% level. Likelihood Ratio Chi-Square is 76.28 and highly statistically significant. *IncomeRental* variable has a positive coefficient and is statistically significant at 5% level. These findings show that when respondents expect higher income from work, higher income from elderly in the family, and rental income to cover their living expenses, they feel more secure about their financial well-being. On the contrary, we find a statistically significant negative relationship between subjective financial well-being and *IncomeGovAid* variable; government sourced income. Households feel concerned about their financial well-being when they rely on government sourced income. For example, if the government aid is paying for a higher portion of the living expenses, people tend to think they do not have enough income.

Table 6 displays the link between subjective financial well-being and the sources of income at retirement. Here

**TABLE 3. Subjective Financial Well-Being and Short-Term Needs**

	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	-1.4781	0.1610	84.2414	<.0001
Healthcare	0.2932	0.0729	16.1795	<.0001
Housing	0.1257	0.0583	4.6444	0.0312
LivingStd	0.2646	0.0820	10.4233	0.0012
LivingExp	0.3723	0.0745	24.9748	<.0001
No. of Obs.	2,473			
Likelihood Ratio				
Chi-Square	309.12			
Pr > ChiSq	<.001			
AIC	2,771.72	2,470.59		

**TABLE 4. Subjective Financial Well-Being and Long-Term Needs**

	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	0.0351	0.1167	0.0903	0.7638
RetireConcern	0.4154	0.0484	73.7163	<.0001
FindJob	0.9294	0.1755	28.0443	<.0001
No. of Obs.	2,401			
Likelihood Ratio				
Chi-Square	121.14			
Pr > ChiSq	<.0001			
AIC	2,703.98	2,586.84		

**TABLE 5. Subjective Financial Well-Being and Current Income Sources**

	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	0.4121	0.1112	13.744	0.0002
IncomeWork	0.3435	0.0520	43.6880	<.0001
IncomeFamily	0.2608	0.0512	25.9625	<.0001
IncomeGovAid	-0.4177	0.1155	13.0721	0.0003
IncomePension	0.1152	0.0640	3.2376	0.072
IncomePrivPen	0.1611	0.1648	0.957	0.328
IncomeRental	0.3495	0.1549	5.0917	0.024
IncomeInv	0.0134	0.1858	0.0052	0.9425
IncomeInherit	0.0345	0.1415	0.0593	0.8076
No. of Obs. Used	2,221			
Likelihood Ratio				
Chi-Square	76.28			
Pr > ChiSq	<.0001			
AIC	2,514.62	2,454.34		

**TABLE 6. Subjective Financial Well-Being and Retirement Income Sources**

	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	0.7444	0.0913	66.4957	<.0001
RetirePension	0.1971	0.0486	16.4831	<.0001
RetireWorkPT	0.0498	0.0755	0.4349	0.5096
RetirePrivPen	0.1935	0.0861	5.0492	0.0246
RetireRental	0.2326	0.1241	3.5452	0.0597
RetireInvest	-0.2089	0.1501	1.9382	0.1639
RetireInherit	-0.0824	0.1052	0.6127	0.4338
No. of Obs. Used	2,147			
Likelihood Ratio				
Chi-Square	28.02			
Pr > ChiSq	<.0001			
AIC	2,421.60	2,405.58		

only a few variables appear to be having an impact on subjective financial well-being. Among the independent variables, *RetirePension* (retirement income from a government pension), *RetirePrivPen* (private pension), and *RetireRental* (rent income) variables are all positive and statistically significant. Likelihood Ratio Chi-Square is 76.28 and highly statistically significant. The results demonstrate the income from a government pension, the income from a private pension plan, the rental income from retirement have a positive effect on respondent's subjective financial well-being.

## Discussions and Implications

### Discussions

This study investigates the perceived financial needs and subjective financial well-being based on a national survey of households in Turkey. We specifically study subjective financial well-being using a hierarchy of needs framework through households' views for their ability to meet current living expenses in the short-term as well as their saving decisions for their retirements in the long-run. Data is obtained through the survey of 2,567 households during December 2014 in Turkey. The survey includes both objective and subjective measures of consumers spending/saving behaviors as well as self-assessments of financial well-being.

Findings provide additional evidence on growing literature on household spending and saving behaviors as well as assessments of their well-being in a highly dynamic emerging market environment. Our findings show that

households' daily concerns including the inability to meet short-term expenses including healthcare, daily living expenses (food and utilities), and inability to maintain the existing life standard are highly significant factors explaining how they feel about their financial well-being. Basic need variables are all positive and statistically significant, indicating that those without difficulty to make their short-term living expenses feel positive about their financial well-being. These results are in line with those of Xiao and Noring (1994) reporting that the ability to provide food and shelter allows higher order needs to emerge, including saving for future needs (i.e., retirement). Moving to the next stage of the hierarchy of needs, we find that households concerns about safety also plays an important role in how they feel about their subjective financial well-being. Specifically, having enough income during retirement and ability to find a job in the future when needed are positively related to subjective financial well-being. Similar findings are reported by Islam et al. (2009) for Brazil, and by Hayo and Seifert (2003) for the Eastern European countries. We further find that those feeling financially secure tend to be more financially responsible and make their credit card payments on time.

We also investigate how the source of income is related to subjective financial well-being currently as well as at retirement. We find when household income from work, rental properties, family and pension, households can support living expenses and feel better financially now. On the other hand, when income is from government assistance,

they feel insecure. Income from investment, inheritance, and private pension do not seem to have any impact on their subjective financial well-being. When we look at the source of income at retirement, we note that households' feel strong about their financials when income is from their government provided pension, private pension, and rental properties.

In summary, we find households' assessments of their well-being as subjective financial well-being seems to be in line with the Maslow's hierarchical theory of human needs. These findings may be the interest of financial planners, educators, and policy makers to improve household saving decisions. Aboagye and Jung (2018) emphasize the motivation to save and find that overspending decreases financial satisfaction where saving is positively related with it. Guo and Finke (2018) show the importance of defined contribution plans for that purpose.

The study has limitations as it is only documenting the survey on a cross-section and the contribution can be higher with intervention on financial literacy before and after conditions of subjective financial well-being. For example, Xu (2018) finds that financial literacy interventions improved financial well-being on lower income families. Sass et al. (2015) reported that the more investors were financially literate, the more sensitive they would be to retirement savings. van Rooij et al. (2007) using Dutch household survey reported that financial literacy enhanced retirement planning and saving, thereby financial well-being. Practitioner can use these findings when advising their clients, knowing how the current and future sources are related to financial well-being.

### **Implications**

Policy makers may provide services and allocate funds to increase financial literacy and they may include this skill as a compulsory input to the education system. After school programs can be launched for older people to improve these skills. This can encourage retirement saving by providing incentives as ability to meet financial obligations and the source of retirement income is closely related to subjective financial well-being. The finance sector professionals can have education programs and a target on providing financial planning ideas and information for the retirement accounts of individuals. The study would be more helpful if it is repeated periodically and the results can be compared across time periods. Further research can analyze the individuals

who do not plan for retirement and focus on those who have more problems with well-being with current income and at retirement. The government can prepare policies and provide tax benefit to change their attitude to spending and motivate them to save more to help them plan for their retirement.

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