# FINANCIAL SATISFACTION IN OLD AGE: A SATISFACTION PARADOX OR A RESULT OF ACCUMULATED WEALTH?

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# FINANCIAL SATISFACTION IN OLD AGE: A SATISFACTION PARADOX OR A RESULT OF ACCUMULATED WEALTH?

*Abstract*

Prior research consistently has found that older adults, despite low incomes, are more financially satisfied than younger adults. This "satisfaction paradox" is typically attributed to elders' supposed psychological accommodation to poor financial circumstances. We advance a different explanation, one that focuses on substantial age differences in wealth and liabilities. Data are from the first wave of the Norwegian NorLAG study (n=4169). Findings support the hypothesis that an examination of a wider range of economic variables shows that material circumstances are more important to the financial satisfaction of the elderly than previously believed. A considerable part of the higher financial satisfaction with increasing age can thus be explained by greater assets and less debt among the aged. Nonetheless, assets and debt do not mediate this relationship at lower incomes, because older people with little income have very little accumulated wealth. As older people with little income and wealth have a much stronger tendency to be financially satisfied than their younger, equally poor counterparts, an "aging paradox" still remains in this field.

Key words: financial satisfaction, age, satisfaction paradox, Norway, assets, debt, income

## INTRODUCTION

Financial satisfaction and its relationship to quality of life have received considerable attention over the last three decades from gerontologists and researchers from other disciplines (e.g., Bowling, 1995; Keith, 1993; Liang et al., 1980; Schieman et al., 2001). Yet our understanding of the sources of financial satisfaction remains limited. In particular, as researchers tend to focus solely on income, little is known about other monetary sources of financial satisfaction (Danigelis & McIntosh, 2001; Hsieh, 2001).

Gerontological research on financial satisfaction has largely focused on the seemingly paradoxical observation that older people, despite their lower levels of income, are more satisfied financially than younger people. High satisfaction among the elderly also appears to occur even at very low levels of income, a finding coinciding with the "satisfied poor" or "satisfaction paradox" phenomenon — high satisfaction with poor conditions (e.g., Olson & Schober, 1993). Given these findings, social psychologists and social gerontologists seem to endorse the view that financial satisfaction among the elderly is only weakly correlated with their financial resources. Furthermore, the consensus is that high financial satisfaction among the elderly is mainly attributable to the use among the elderly of passive coping strategies, such as downward adjustment of needs, aspirations, and comparison standards (e.g., Francoeur, 2002; Hsieh, 2003; Fletcher, 1985).

The aim of this paper is to challenge these views by exploring not only the role of income but also that of property assets, financial assets, and debt in fostering financial satisfaction in midlife and old age. More specifically, we aim to make two main contributions to this literature. First, we assess whether one can better understand variations in financial satisfaction by including a wider range of economic variables. Simultaneously, we pay attention to the relative importance of these financial variables and the potential moderating role of age in these relationships. Even if income should have a weaker relationship to

financial satisfaction with higher age, other financial variables may turn out to be of particular salience in old age. The inclusion of assets and debt may show the relationship between economic resources and financial satisfaction in old age to be stronger than previously believed. Second, we ask whether the relationship between age and financial satisfaction may be accounted for by the tendency of the elderly in contemporary Western societies to have more accumulated wealth and substantially fewer liabilities than younger adults (see, e.g., Holden & Hatcher, 2006; Statistics Norway, 2002b). If so, high financial satisfaction in old age may be less paradoxical than the literature suggests.

In addition to broadening the set of indicators of financial standing, our study diverges from the existing literature in three respects (covered in more detail later). First, we use *tax record information* (official register data) about economic resources. As this source improves data quality and gives a complete response rate, there has been a call for research that combines survey information with tax record information on economic resources (Diener & Biswas-Diener, 2002). Second, we use information about *personal* economic resources, which may be more relevant than household-level data in today's two-income families in Western societies (Pahl, 2005; Ahuvia, 2002). Third, this study is from a Nordic country, which has less income inequality and more generous welfare policies than most other Western countries, factors that may affect people's financial security, worries, and satisfaction.

This paper proceeds as follows: The first section reviews prior research documenting the paradox of high satisfaction despite low income among the elderly. We also give a short overview of the psychological accommodation processes assumed to account for this paradox. In the second section, we describe the likely influence of assets and debt on financial satisfaction, and review the sparse available empirical evidence. Here, we also discuss why assets and debt may be particularly important to older people's financial satisfaction. The third section advances our research questions, which, in brief, focus on whether older people's

accounts of high financial satisfaction is best understood as a "satisfaction paradox" or, more prosaically, as attributable to greater wealth and fewer liabilities at older ages. In the fourth section, we set out the methodology and present the results. The concluding section discusses implications for social policy concerns and offers ideas for future research.

## LITERATURE REVIEW

### *The relationship between age and financial satisfaction*

As older persons earn substantially less than midlife persons, one would expect an inverse relationship between age and financial satisfaction. However, consistent evidence from the U.S. and Europe correlates age positively with financial satisfaction, at least from about age 40 (Hazelrigg & Hardy, 1997; Praag & Ferrer-i-Carbonell, 2004; Schieman et al., 2001; Seghieri et al., 2006; Stoller & Stoller, 2003). Typically, about 85% of older Americans (George, 1993) and Norwegians (Statistics Norway, 2006) are satisfied or very satisfied with their financial situation (the proportions among nonelderly Norwegians are 5-15% lower).

A closer inspection of U.S. data reveals that while mean income declines over the second half of life, particularly following retirement, financial satisfaction follows an opposite trend with a clear increase among those beyond working age (Burholt & Windle, 2006; Easterlin, 2006; Hsieh, 2003; Mirowsky & Ross, 1999). Even more puzzling is that the elderly tend to be financially satisfied even at very low levels of income (e.g., George, 1992; Stoller & Stoller, 2003). These findings coincide with the "satisfaction paradox" phenomenon (high satisfaction with poor living conditions) (Olson & Schober, 1993; Slagsvold, 1985), which seems to be more prevalent in older than in younger ages (Burholt & Windle, 2006; Ferring & Filipp, 1997).

### *The relationship between income and financial satisfaction*

Reviews of both older (George, 1992, 1993) and more recent studies (Johnson & Krueger, 2006) reveal that the relationship between income and financial satisfaction is positive but moderate in magnitude, showing correlations around .20-.40. According to relative standards theory (e.g., Campell et al., 1976; Michalos, 1985), part of the reason for this moderate correlation is that perceptions of financial satisfaction depend more on relative than absolute income (compared to, e.g., past income or the income of relevant others). Several researchers have provided empirical support for this theory (Diener et al., 1993; Michalos, 1985; Solberg et al., 2002).

Substantial evidence shows that the relationship between financial resources (using income as the indicator) and financial satisfaction tends to be particularly weak among the elderly (Fletcher & Lorenz, 1985; Francoeur, 2002; George, 1992; Hsieh, 2001, 2002, 2003). In her review of U.S. literature, George (1992) concludes that income explains only about half as much of the variance in financial satisfaction among older adults, compared to the total population. The weaker income-financial satisfaction link at older ages seems to be in part due to a generally high level of financial satisfaction among the elderly, even to the extent that one can talk of "ceiling effects" (i.e., less variance to explain among the elderly).

*Why are the elderly more financially satisfied than the nonelderly?*

In theorizing high financial satisfaction among the elderly, scholars focus on (i) aging, (ii) life course, and (iii) cohort explanations. These explanations converge on the idea that an individual's level of financial satisfaction is inversely related to the gap between his or her resources and his or her perceived needs and aspirations, but offer different perspectives on why this gap tends to be smaller at older ages. First, aging explanations are based on the idea of adaptation or accommodation. Due to limitations and losses endemic to aging, constraints on economic resources, and limited opportunities for improving their economic situations,

people tend to adjust down their needs, aspirations, and comparison standards downwards as they age in order to maintain well-being (Fletcher & Lorenz, 1985; Francoeur, 2002; George, 1992; Hazelrigg & Hardy, 1997; Heckhausen & Brim, 1997; Hsieh, 2003; Liang et al., 1980; Praag & Ferrer-i-Carbonell, 2004). Second, life course explanations posit that older people, following retirement and their children's leaving home, have reduced financial needs and, consequently, should have less trouble "making ends meet" (Stoller & Stoller, 2003). Third, cohort explanations attribute elders' high levels of financial satisfaction to the fact that most elders experience a sharp contrast between current and past (childhood and early adulthood) financial circumstances (Burholt & Windle, 2006; Liang & Fairchild, 1979). This idea is analogous to relative income theory (e.g., Diener et al., 1993), positing that increases in income should produce a positive shift in financial and global well-being.

While the sparse available longitudinal evidence gives some support to an aging effect (that people become more financially satisfied as they age), it gives even more support to cohort explanations (recent generations being less financially satisfied) (George, 1993; Hsieh, 2000). If the latter holds, the financial satisfaction in the elderly population should decrease through a process of cohort replacement. Hsieh (2002) found that this inter-cohort effect was particularly pronounced among the poor, suggesting that the poor elderly of tomorrow are likely to be less satisfied financially than the poor elderly of today.

## ASSETS AND DEBTS AS DETERMINANTS OF FINANCIAL SATISFACTION: THEORY AND FINDINGS

Assets and debt may be important sources of financial satisfaction for at least two reasons. First, assets and debt directly influence the amount of disposable money presently available. Second, when individuals assess their financial satisfaction, they probably not only evaluate their present financial situation but also consider how their current assets and debt holdings

will affect their ability to meet future needs. Assets thus may enhance financial satisfaction by fostering a sense of economic security and access to a buffer that can be drawn upon in times of need. Conversely, debts or the lack of assets may give rise to economic concerns for the future (Drentea, 2000), thereby compromising financial satisfaction.

The two major forms of assets, property assets and financial assets, are likely to have different impacts on financial satisfaction. Property assets may generate funds either through sale, rental income, or their usefulness in obtaining mortgages and loans. Home ownership also saves money that would otherwise be spent on rent. However, property assets such as a home or a car will over time also entail considerable expenses, even after the mortgage is paid off. In this sense, the effect of property assets on financial satisfaction may not be unambiguously positive. Financial assets, on the other hand, are much more readily available and have no comparable "flipside" (except a small wealth tax). Financial assets may also play an important role in covering the expenses entailed by property assets.

Self-reports of assets and debts typically suffer from underreporting and high nonresponse (Headey et al., 2005; Headey & Wooden, 2004; Juster et al., 1999), problems that may be even more substantial than those for self-reports of income (Hermalin et al., 2002; Radner, 1992). Consequently, few data sets have high-quality measures of assets and debt (Crystal, 1996). Research on the role of assets and debts as predictors of subjective outcomes is thus limited to a few recent studies.

This limited literature has shown that, in a multivariate context, wealth and debt seem to have strong effects on financial satisfaction, equal in size to that of income. Zimmermann (2006) found, using American panel data (ages 23-97), that measures of assets and debts explain more of the variance in financial satisfaction than household income. Headey and colleagues (Headey et al., 2005; Headey & Wooden, 2004), using Australian panel data (ages 15 and older), found that self-reported household net worth (assets minus debts) is at least as

important to financial satisfaction and global life satisfaction as disposable household income. Praag & Ferrer-i-Carbonell (2004), using German and UK data, found that savings and income were about equally predictive of financial satisfaction. Johnsen & Kruger (2006), however, recently observed that among Americans aged 25-74, financial satisfaction correlates somewhat more strongly to income (.29) than to assets (.17, measured as savings minus debt).

Although assets and debts thus seem important for financial satisfaction in all adult age groups, little is known about the extent to which the effects of different economic variables on financial satisfaction change over the life course (Douthitt et al., 1992). Typically, various kinds of objective circumstances have very modest effects on their corresponding subjective evaluations among the elderly (Campell et al., 1976; George et al., 1985; Pinquart & Sorensen, 2000). Downward adjustment of goals and comparison standards among the elderly are the most central mechanisms proposed as accounting for this trend. Given this background, George (1993) posits that perceptions of financial satisfaction among older people are also less dependent on wealth than they would be among younger individuals.

Nevertheless, several reasons exist for expecting that the effects of assets and debt on financial satisfaction may be equally strong or even stronger among the elderly. As most elders have moderate incomes that cannot easily be increased, other available resources may be particularly important. The elderly may also be more concerned than the nonelderly about future expenses, such as those attached to health deterioration or widowhood. For these reasons, assets may represent substantial value in old age as a source of economic security and strengthen feelings of independence, autonomy, and predictability (Henry, 1991; Hermalin et al., 2002). Social expectations and norms concerning assets and debt also may vary with age and life stage. For example, most elders wish to leave bequests and to financially support younger generations (Hermalin et al., 2002; Kopczuk & Lupton, 2007).

Thus assets may affect the nature of intergenerational exchanges, thereby affecting their financial satisfaction. In Norway, most of the elderly are debt-free, with only 13% of those aged 65 and above still paying off mortgages (Statistics Norway, 2002b). Whereas younger adults are *expected* to borrow from their future selves (Hardy & Hazelrigg, 1999), the presence of debt is non-normative among older Norwegians and thus may compromise their financial satisfaction.

## RESEARCH QUESTIONS

Given this review and discussion, we turn to the following research questions: First, to what extent does financial satisfaction improve with increasing age? Second, what is the impact of various economic resources (income, property assets, financial assets, and debts) on financial satisfaction, and are these effects comparable across age groups? Third, to what extent can age differentials in assets and debts account for the positive correlation between age and financial satisfaction, and do household characteristics (cohabitation, the presence of children) and health status also explain part of the positive age gradient in financial satisfaction? Fourth, can assets and debts explain age differences in financial satisfaction across the entire range of incomes? Even though most elders have considerable tangible and financial wealth, elders near the poverty level tend to have little in the way of accumulated wealth (Burholt & Windle, 2006). On the positive side, low-income elders in Norway generally also have little debt (Statistics Norway, 2006). We thus ask whether assets and debts mediate the association between age and financial satisfaction only at medium to high levels of income. This last question deals with the important issue of inequality among the elderly. It also responds to the call for further analyses specifically of the poorest elderly, the group in which the “satisfied poor” phenomenon seems to be particularly common (e.g., George, 1993). All analyses are run separately by gender.

# METHODS

## *Data*

This paper is based upon data from the first wave of the Norwegian Life Course, Aging, and Generation Study (NorLAG). NorLAG comprises representative randomly stratified (by age and sex) samples of adults aged 40-80 from 30 Norwegian municipalities representing different geographic regions. Data were collected in March 2002 through March 2003 with a new wave of data collection in 2007-2008 and every five years thereafter. Statistics Norway interviewed 5589 respondents (response rate 67 %) using computer-assisted telephone interview technology. Subsequently, 4169 (75 %) of these individuals completed a mailed questionnaire (combined response rate 50 %). Data from public registries were added after respondents gave informed consent. This study uses data from the 4169 respondents that completed both interviews.

## *Variables*

Measures of financial satisfaction typically refer to subjective evaluations of the degree to which one's financial resources are adequate or bring satisfaction (George, 1992). In this paper, *financial satisfaction* is measured by the question "How would you describe your present financial situation", with five response categories; "great financial difficulties" (1), "some problems", "must be careful, but I get by", "good", to "very good" (5). As indicated, ordinal level categories were assigned integers 1 through 5.

We use tax record information (official register data) about economic resources. With the consent of the respondent, Statistics Norway provided the NorLAG survey with information about each respondent's income, assets, and debt for the year 2002. The merging of data was approved by the Norwegian Data Protection Agency.

The most important benefits of using register data are data quality and a complete response rate. Self-reports on economic resources typically suffer from low reliability and high non-response (Atkinson et al., 1995; Headey et al., 2005; Hermalin et al., 2002). Comparing survey and register data on income, Epland & Kirkeberg (2002) found that interview information tends to be biased towards the "mean"; the richer tend to underestimate and the poorer tend to overestimate their incomes. Others have shown a tendency for people to overestimate the value of their property (e.g., Kiel & Zabel, 1999). By using register data we also avoid problems with possible underreporting of financial means (especially unearned income such as pensions and interests) at older ages (see Crystal & Shea, 1990). The Nordic countries are among the few countries in the world that permit adding tax record and other register information (e.g., on marital status, education, migration) to survey data, with the consent of the informant.

The NorLAG has information about *personal* economic resources, as information about household finances is not available. While using personal, not household, data has potential advantages and disadvantages[1], which source of income (personal or household) is the better predictor of financial satisfaction is an open question (Hsieh, 2001). Some scholars (Ahuvia, 2002; Pahl, 2005) argue that in two-income couples in Western societies, couple finances are becoming more individualized, and that individual income thus may be more closely associated with happiness than joint income. With data from the Norwegian (and nationally representative) 2002 Living Conditions Survey, we find that, ceteris paribus, personal income is more predictive of "difficulty paying bills during the last year" than household income. Nonetheless, personal resources may be poor indicators of financial circumstances for those dependent on the partner's income (predominantly women). Indeed, data from the 2002 Living Conditions Survey show that, among persons aged 40-79 living with a partner, information on personal resources (income, assets, and debt) is highly correlated with

household resources for men (correlations above .90) but less so for women[2]. This finding suggests that the results for men would have been highly similar had we used household measures. However, as personal resources may be poor indicators of financial circumstances for partnered women, we use only unpartnered women in this study.

We use personal *income* before tax from all sources (wages and salaries, social security, pensions, benefits, income of capital, entrepreneurial income, share dividends, etc.). *Assets* include two major forms of assets: property assets (also called "real capital," including home and other properties, production capital, and motor vehicles) and financial assets (bank deposits, shares, and other securities)[3]. *Debt* encompasses mortgages on real estate, debt on business, vehicle loans, educational loans, and loans from financial institutions.

The convention in most prior work has been to use the log of income and other financial variables (e.g., Hazelrigg & Hardy, 1997; Johnson & Krueger, 2006). This choice is typically based on the variable's skewed distribution (outliers) and/or its nonlinear relationship (diminishing marginal utility) to the dependent variable. We found that income, assets, and debt all are not normally distributed, but highly skewed to the right. Furthermore, we investigated the *form* of the relationships between financial satisfaction and, in turn, assets and debt. Does financial satisfaction increase or decrease with income, assets, and debt at a constant rate or at an increasing or decreasing rate (see figure A in the appendix)? On the whole, the effects appear linear at low to medium levels, but to increase at a decreasing rate at very high levels of income, assets, and debt. Empirically, the log of income, assets, and debt, compared with the simple linear form of these variables, in bivariate (correlation) and multivariate analyses explain more of the variance in financial satisfaction. Therefore (except in the descriptive analyses in table 1), we use the log of the financial variables.

To explore potential nonlinear effects of age, and to highlight financial satisfaction in the group above retirement age in Norway (age 67), we group *age* into categories 40-52, 53-66,

and 67-80. We include a number of covariates that reflect life-cycle resources and costs, and thus needs[4]. *Partnership status* is combined with employment status; unpartnered (i.e., neither married nor living with a partner), living with a partner who is not working, living with a partner who is working part-time, and living with a partner who is working full-time. Partner-by-employment status yields information about whether an individual has someone with whom to share expenses and thus provides a crude proxy (three levels) for the partner's income level. Younger people are more likely than older people to have a partner, and to have a partner who is working. Similarly, the presence of *children in the household* (0, 1, 2, and 3+) is related negatively to age and entails substantial expenditures, which in turn may diminish financial satisfaction (Praag & Ferrer-i-Carbonell, 2004).

Self-reported health is measured by the question "In general, would you say your health is poor (1), fair (2), good (3), very good (4), or excellent (5)?" This item proxies for health care expenditures and ability to earn money. In the U.S., there are strong positive relationships between age and medical and long-term care expenditures, and between health and financial satisfaction (Stoller & Stoller, 2003; Vera-Toscano et al., 2006). The impact of health on financial satisfaction may be weaker in Norway, as the elderly—because of public social benefits—generally spend no more (in total) on health care and long-term care than the nonelderly (Holmøy & Høstmark, 2000). The age gradients for income, partner, and health make us expect lower financial satisfaction with older age, whereas assets, debt, and the absence of children should make for increases in financial satisfaction at older ages.

*Analytic strategy*

We use analysis of variance (ANOVA) to test the significance of differences in financial means and financial satisfaction across age groups. We use chi-square tests to compare the

proportions in disparate age groups reporting low financial satisfaction, and Pearson correlations to assess intercorrelations between continuous variables.

We analyze property assets, financial assets, and debts separately, as composite net wealth (assets minus debts) leads to a loss of information, because the same amount of net worth can be derived from substantively different compositions of the individual components (Zimmermann, 2006). The use of separate measures enables us to explore whether property assets, financial assets, and debt—and, by implication, the different compositions of components in net worth measures—have different effects on financial satisfaction. For example, since people tend to have far more (about 4 times) property assets than financial assets, property assets would have a much larger influence on net worth (and the concomitant effects of net worth on financial satisfaction) than financial assets.

All multivariate analyses use ordinary least squares (OLS) regressions to model financial satisfaction. We use OLS regression for reasons of familiarity and ease of interpretation. Using OLS regression when the dependent variable is ordinal may be problematic, as it violates the assumption of interval level data. As others have found (Headey & Wooden, 2004; Zimmermann, 2006), however, the results were replicated when we performed the analysis for financial satisfaction using an ordinal-probit model. Ferrer-i-Carbonell and Frijters (2004) have shown that the choice of methodology (OLS regression, ordinal-probit, or ordinal-logit techniques) in this context makes little difference to the empirical results.

To determine whether the effects of financial resources variables on financial satisfaction are modified by age, we tested the significance of linear interaction terms (e.g., age multiplied by log income), while controlling for the main effects of age and all the other financial resources variables. Interaction terms were tested one pair at a time. We used analyses of covariance (procedure General Linear Model in SPSS) to estimate adjusted mean levels of financial satisfaction by age groups.

# RESULTS

*1. Age trends in financial means and financial satisfaction*

Table 1 presents mean levels of income, assets, debt, and financial satisfaction in three age groups (40-52, 53-66, and 67-80) separately by gender. The table shows a consistent pattern across age groups and financial variables—that the financial circumstances of men are better (typically by about 20%) than those of women.

[Table 1 about here, see end of document]

Associations between age and financial resources tend to be relatively gender-consistent. Higher age is associated with lower income, and a marked income gap exists between those before and after retirement age (age 67). Age correlates linearly with income at -.36 among both men and women. Property assets are unrelated to age among men, whereas women aged 53-66 have somewhat more property assets than women aged 40-52 and 67-80. The lack of a strong relationship between age and property assets partly reflects home ownership's being about equally common (80-90%) in these age groups (Statistics Norway, 2002a). Financial assets increase from middle to old age. The positive correlation between age and financial assets reflects accumulation of savings over the life course, but it also possibly indicates the stronger tendency to save (rather than spend or invest) financial means among older cohorts (Halvorsen, 2003).

Debt drops drastically with higher age. About half (54 % of men and 49 % of women) of those aged 67-80 years are debt-free (as compared to 10 % and 7 % in the ages 40-52, results not shown). Fewer debts (as the elderly typically have paid off their mortgages) and more savings are the reason that net worth shows a strong upturn with older age for both men and women. Most but not all associations between age and financial resources are linear (results

not shown)[5]. The age differential trends in income, assets, and debt are consistent with those of the general Norwegian population (Statistics Norway, 2002b, p. 40).

There is a significant interaction between gender and age ($p < .01$) in their effects on financial satisfaction, as gender differences decline with increasing age (although men are significantly more satisfied at $p < .05$ in the oldest age group, results not shown). Conversely put, this interaction also shows that the positive relation between age and financial satisfaction is stronger for women (.26) than for men (.08). The relations between age and financial satisfaction are linear (results not shown). As shown, 9% of men and 25% of (single) women aged 40-52 report low financial satisfaction ("great financial difficulties" or "some financial problems"), while such reports come from only 3% of men and 5% of women among those aged 67 and above.

A table of intercorrelations between the variables of this study appears in the Appendix, showing that most intercorrelations between independent variables are small to moderate; thus multicollinearity clearly is not a problem. Financial satisfaction is more strongly related to financial assets (.39 among men and .45 among women) and income (.37 and .27) than to property assets (.20 and .16) and debt (-.08 and -.24). However, given the intercorrelations between economic resources variables, the "true effect" (or the "net effect") of each variable on financial satisfaction can be assessed only multivariately.

*2. What is the impact of income, assets, and debt on financial satisfaction, and are these relationships moderated by age?*

Table 2 reports financial satisfaction regressed on economic variables and controls separately by gender and age group (40-52, 53-66, and 67-80). Among men, income has the strongest impact (as measured by the standardized coefficients) on financial satisfaction, followed by

financial assets, debt, and property assets. For women, financial assets have a stronger effect than income, followed by debt and property assets (nonsignificant).

[Table 2 about here, see end of document]

The two bottom rows of Table 2 report the amount of variance in financial satisfaction explained by all four financial resources measures versus that explained by income alone (i.e., squared correlations). Income alone explains about 14 and 7 %, respectively, of the variance in financial satisfaction among (all) men and women. However, financial assets and debt, and to a lesser extent property assets, also contribute significantly to people's financial satisfaction. The addition of assets and debt increases the amount of explained variance in financial satisfaction from 14 to 25 % among men and 7 to 29 % among women (and from 14 to 20 % and 18 to 27 %, respectively, in the oldest age group). In this way, we are able to explain 1.8 and 4.1 times more of the variance in financial satisfaction than by income alone. Economic resources thus have a considerably stronger impact on financial satisfaction than would be evident if income were used as the sole measure of financial means.

In ancillary analyses, we tested the linear interactions between age and financial variables. The results of the significance tests appear in Table 2. We found that age interacts significantly with income, as the effect of income declines gradually from younger to older age groups. The effect of property assets, financial assets, and debt, however, does not interact with age.

*3. To what extent can age differentials in assets and debts account for the positive correlation between age and financial satisfaction?*

[Table 3 about here, se end of document]

In Table 3, financial satisfaction is regressed on age, financial variables, and controls among men and women. Model 1 shows a significant, positive relation between age and financial

satisfaction (the omnibus tests for age yield F-values of 6.7 and 23.0 for men and women). In Model 2, we control for income, which impacts strongly and positively on financial satisfaction. After controlling for income, the effect of age on financial satisfaction increases substantially (F-values 52.6 and 56.2). The marked drop in income at age 67 (table 1) explains why controlling for income specifically increases the gap in financial satisfaction between the youngest and oldest individuals (age 40-52 vs. 67-80).

In Model 3, we also control for assets and debts. Given the lack of substantial relationships between property assets and age and financial satisfaction, property assets have little effect on the mediational analyses. Incorporating (financial) assets and debt decreases the effect of age to about its original (model 1) level (F-values 5.2 and 17.7). Thus, the income-adjusted effect of age is largely mediated by assets and debt. The difference in financial satisfaction between men aged 40-52 and 53-66 is completely accounted for by assets and debt. Nonetheless, we are not able to explain away all of the effect of age. (As we shall show, the remaining effect of age is entirely due to the positive age gradient in the segment with low income).

Model 4 also incorporates partnership (by employment status, and only among men), number of children in the household, and self-reported health. In Model 4, the effect of age changes somewhat from that in Model 3 among men (from 5.2 to 7.9) and women (from 17.7 to 15.0). Having a partner in the household entails “economies of scale” benefits. However, the impact of having a partner on financial satisfaction is significant only if the partner is working. Health has a moderate, statistically significant positive effect on financial satisfaction. Number of children in the household has a slight negative effect among women.

Preliminary analyses of the present material showed that the age gradient in financial satisfaction is similar to that of life satisfaction; age and life satisfaction (measured by the 5-items Satisfaction With Life Scale (Pavot et al., 1991)) are correlated at .08 (men) and .17

(women) (no gender difference in life satisfaction in older age groups). Therefore, it could have been interesting to explore the role of economic variables in explaining also the high global life satisfaction of older people. However, we have ignored global life satisfaction as it is much less well predicted by income and other economic variables than financial satisfaction (Diener & Biswas-Diener, 2002; Headey & Wooden, 2004). In ancillary analyses (not shown), financial variables (the log of income, assets, and debt) explain only about 3% of the variance in life satisfaction, and, in multivariate analyses (same as model 4 in table 3), none of the four financial variables is a significant ($p < .01$) predictor of life satisfaction (with the exception of a small effect of income among men; $t = 3.3$). Thus, these variables only affect life satisfaction indirectly via financial satisfaction (these satisfaction measures are correlated at .32 and .33 among men and women respectively).

*4. Can assets and debts explain age differences in financial satisfaction across the entire range of incomes?*

Because elderly people with low income also have little accumulated wealth[6], we expected that assets and debt would not mediate the effect of age at lower incomes. This expectation is supported, as we find a significant negative age-by-(log) income interaction effect ($p < .01$; Table 2), net the effect of assets, debt, and other controls. This interaction shows that income has a stronger effect on financial satisfaction in younger age groups, or, put differently, that age differences in financial satisfaction are larger at lower incomes. This interaction is illustrated in Figure 1 (bivariate results) and Figure 2 (after adjusting for assets, debt, and other controls), both of which show unadjusted and adjusted mean levels of financial satisfaction by age and income (based on tertiles in the male subsample) groups among men. An almost identical pattern was evinced in an ancillary analysis for women, and, due to the similarity, we chose to model this interaction only for men.

[Figure 1 about here, see end of document]

[Figure 2 about here, see end of document]

As Figure 1 shows, age is positively related to financial satisfaction in all income groups but with a stronger gradient at lower incomes. Controlling for assets and debt (Figure 2) reduces age differences in financial satisfaction to nonsignificance in all but the lowest income group (however, the age-by-(log) income interaction is still significant at $p < .01$). This result again illustrates the strong tendency among the elderly, even among those with relatively poor financial circumstances, to report high financial satisfaction.

## DISCUSSION

A growing literature has demonstrated that people in old age tend to report relatively high financial satisfaction, even at very low levels of income. The correlation between income and financial satisfaction at advanced age therefore is characteristically modest. Younger people's financial satisfaction typically fluctuates much more as a function of their income level. Therefore, scholars commonly more broadly conclude that the relationship between objective and subjective financial well-being declines with advancing age (e.g., Fletcher, 1985; George, 1993). Furthermore, there is consensus that high financial satisfaction among the elderly is mainly a result of accommodative strategies, such as rescaling goals and adjusting aspirations to the given situation. This study, by including a wider range of financial variables than in most prior work, aimed at demonstrating that financial circumstances have a stronger effect on financial satisfaction in old age than previously believed. Moreover, we proposed to explain the seemingly unreasonably high financial satisfaction in old age by taking into account age patterns in assets and debts.

We first examined the effects of income, property assets, financial assets, and debt on financial satisfaction in midlife and old age. Income and financial assets have the strongest

effects on financial satisfaction. The effect of debt is somewhat weaker but nonetheless substantial. The strong effects of financial assets and debt accord with previous results using self-reported financial circumstances (Headey et al., 2005; Johnson & Krueger, 2006; Zimmermann, 2006). Property assets have only a weak association to financial satisfaction (nonsignificant among women). As shown by others (Zimmermann, 2006), financial assets boost financial satisfaction much more than tangible assets. The weak effect of property assets probably attests to their dual role as a potential source both of income (through sale or by using assets to secure loans) and expenses (maintenance costs associated with owning a property, a car, etc.). Financial assets, on the other hand, are more readily available when needs arise.

Consistent with prior work (e.g., George, 1992; Hsieh, 2003), the effect of income on financial satisfaction declines with older age groups. However, the effects of property assets, financial assets, and debt do not vary significantly by age or life stage. This finding runs counter to George's (1993) anticipation that not only income but also wealth should be more weakly correlated to financial satisfaction in old age, or to the broader notion that objective circumstances of all kinds only have modest effects on subjective outcomes among the elderly (Campell et al., 1976; George et al., 1985; Pinquart & Sorensen, 2000). Indeed, when we add information on assets and debts, we are able to explain about 50-100% more of the variance in financial satisfaction than by income alone, both for the middle-aged and the elderly. The somewhat lower increment in explained variance among the elderly may result from "ceiling effects" in the dependent variable (less variance in financial satisfaction to be explained among the elderly). At all stages of the life course, therefore, objective economic circumstances have a greater impact on subjective outcomes than previously believed.

Another aim of this study was to examine the relationship between age and financial satisfaction and the mediating role of assets and debt. First, our results replicate prior work

(e.g., George, 1992; Hsieh, 2003) documenting a positive relationship between age and financial satisfaction. In our data this trend is linear, not evincing the "jump" at retirement age (contrasting the clear opposite trend for income) found by others (Burholt & Windle, 2006; Easterlin, 2006; Hsieh, 2003; Mirowsky & Ross, 1999). Second, the potential mediating role of assets and debt is established, as higher age is strongly related to more financial assets and fewer liabilities (and, as discussed, these variables are closely linked to financial satisfaction). Property assets have no strong relation to either age or financial satisfaction, and thus play no significant mediating role in this context.

The mediational analyses first show that the effect of age on financial satisfaction becomes markedly stronger after controlling for income, which correlates negatively with age. Next, the income-adjusted effect of age is largely mediated by financial assets and debts. This finding indicates that financial assets and debt act as counterforces protecting the financial satisfaction of the elderly in the face of lower income. Thus financial satisfaction does not follow the same downturn as income from midlife into old age because levels of debt decline and levels of assets increase over the life course. Therefore, the positive linkage between age and financial well-being is less paradoxical than the literature suggests.

However, a small age effect remains, one entirely accounted for by a positive age gradient in the segment with low income. Assets and debt mediate the effect of age at middle to high incomes but not at lower incomes, since elders and others with little income also tend to have limited wealth. Nor was the effect of age at low incomes mediated by age or life stage differentials in household size and health. Both these results and prior research (Hazelrigg & Hardy, 1997; Stoller & Stoller, 2003) demonstrate the bias of the elderly toward financial satisfaction even at very low levels of income: The poor elderly tend to see the financial glass as half full; the poor younger, as half empty. Although the "satisfied poor" or "satisfaction

paradox" phenomenon (Olson & Schober, 1993) does not seem to apply to the majority of elders, it evidently exists among elders with little income and wealth.

Why are the elderly (but not the middle-aged) financially satisfied even at lower incomes? We have ruled out, analytically, explanations related to life-cycle differentials in wealth, household size, and health. We advance three possible explanations, each relating respectively and primarily to the effects of aging, life stage, and cohort. First, because most elderly cannot alter their income or make their way out of poverty (active coping), they may tend to change their perception of the condition (passive coping) to maintain a feeling of well-being (Heckhausen & Brim, 1997). Second, the strain associated with poverty may be stronger for younger people. While poverty is difficult to adapt to, even in the long run (Diener & Diener, 1995), younger people have a longer time horizon (i.e., they may be poor for a longer time), their poverty is more likely to affect others (e.g., their children or partner), and they have less predictability in terms of income and expenses than do elders. A third point relates to cohort differences and comparison between past and present. For many women who have been homemakers for the better part of their lives, retirement marks the transition into their first earnings (at least for a long time). In this way, many previously one-income households become two-income households following retirement, and their (women's and partnered men's) financial satisfaction may be elevated, as their low income is nonetheless an improvement.

Some characteristics of the Nordic welfare system may affect the generalizability of our results to other regions. International comparisons show that people from the Nordic countries are among the most financially satisfied people (Seghieri et al., 2006). This finding could reflect features of the Nordic welfare model, such as a relatively equal distribution of resources, a ceiling on health care costs (about US$200), and extensive home ownership (about 80-90% of Norwegians above age 45 own their homes) (Statistics Norway, 2002a).

Moreover, the annual minimum old-age pension totals about US$17,000 in Norway, an amount just above the national poverty line. Therefore, poverty rates among the elderly are about 3-5 times higher in the U.S. and the UK than in Norway (Smeeding & Sandstrom, 2005). Even though Norway has a fair proportion of near-poor among the elderly (Pedersen, 2004; Smeeding, 1990), a high level of absolute income coupled with extensive distributional measures at the national level could make for particularly weak associations between financial satisfaction and various indicators of social and economic standing (including age). Furthermore, in Norway people do not need to worry about or plan extensively for the financial costs associated with disability or the loss of a spouse, a situation that may imply that the importance of wealth as a source of economic security may be more pronounced elsewhere.

Nonetheless, a crude comparison with previous findings reveals striking similarities. First, about the same proportion of elders (about 85%) in the U.S. and Norway are satisfied with their financial lot. Second, the correlations between financial satisfaction and, in turn, income and wealth measures are consistent with those of prior work (typically in the range of .20-.40) (George, 1992; Headey et al., 2005; Headey & Wooden, 2004; Johnson & Krueger, 2006). Third, the multivariate result that the impact of financial assets is close to that of income has been shown previously (Praag & Ferrer-i-Carbonell, 2004; Zimmermann, 2006). Fourth, we replicated previous results indicating that financial assets are more predictive of financial satisfaction than property assets (Zimmermann, 2006). Fifth, the proportion of variance accounted for by financial and sociodemographic variables (about 30 %) is similar to, if not a bit higher than, that reported previously (Headey & Wooden, 2004; Hsieh, 2001; Stoller & Stoller, 2003; Zimmermann, 2006). These similarities are also noteworthy in the light of methodological discrepancies between this and prior research (personal versus household level data, register versus self-report measures, financial adequacy versus financial

satisfaction, etc.). Taken together, these similarities in findings from studies that differ across cultures, samples, and measurements strengthen the robustness of the conclusions.

The positive age gradient in financial and life satisfaction, and the concomitant "satisfaction paradox" phenomenon, might not be a universal, but a Western occurrence. A recent study of 132 countries found a bivariate U-shape in age in life satisfaction, but only in rich countries (Deaton, 2007). This suggests that elderly in richer, OECD-countries fare relatively better than both their younger countrymen and their elderly counterparts in other countries. Furthermore, it is uncertain whether the mechanisms assumed to account for these age gradients are at play also in non-OECD countries. In the current study, wealth partly explains the "paradox" of high financial satisfaction in old age. Because wealth is found to increase with rising age in Western countries, this explanation is likely to be generalizable to other rich countries. It might not play out elsewhere, however, as we know little about the age gradient in wealth in non-OECD countries. Moreover, Deaton (2007) concludes that wealth is one main factor that buffers the effects of aging on the good life. In this Norwegian sample, wealth does not explain the "paradox" of high life satisfaction in old age. In fact, life satisfaction is, ceteris paribus, unrelated to income (among women), assets, and debt. Part of the reason why life satisfaction increases with age in OECD-countries but not in non-OECD countries seems to be that the decline in health status and rise in disability with age are much stronger in poor countries than in rich countries (Deaton, 2007; Helliwell & Putnam, 2005). A second reason might be that elderly in rich countries have experienced more substantial social and economic improvements from early to late adulthood.

*Implications and future research*

Our first point refers to determinants of financial satisfaction. As already shown, people consider more than current income when making judgments about financial satisfaction. This

finding suggests that studies of financial satisfaction should use a more detailed specification of financial resources. Another lesson to be learned is that, given the strong intercorrelations between financial resources variables (Johnson & Krueger, 2006; Mullis, 1992), not controlling for the other variables will introduce substantial measurement error when one tries to assess the independent effect of one variable (usually income) on subjective outcomes. However, even when we consider the most relevant information—financial resources, household composition, and health—more than two thirds of the variance in financial satisfaction still remains unaccounted for. A more detailed description of people's expenses is an example of objective circumstances that need examining if we are to enhance our understanding of the sources of financial satisfaction. More research is also needed on the effects of the psychological mechanisms (discussed in this paper) by which people evaluate their financial circumstances.

Our second point refers to distributional policies. The discrepancy between financial resources and satisfaction, especially among the poor elderly, supports the view that subjective measures of financial well-being cannot be the (sole) measure on which distributional policies are based. Several commentators believe that the low levels of financial resources that can generate high financial satisfaction among the elderly may be unrealistic for meeting their financial needs, and some elderly seem disinclined to complain or express dissatisfaction even when an "objective" need for doing so exists (George, 1992; Hazelrigg & Hardy, 1997; Stoller & Stoller, 2003). Social policy therefore also needs to pay close attention to the financial well-being of the elderly in absolute terms.

Third, tomorrow's elderly will be healthier and better educated, and can expect to live longer than the elderly of today. Some commentators are concerned that these trends may predict higher economic needs and expectations, and thus lower financial satisfaction, in future cohorts of the elderly (George, 1993; Slagsvold, 2004). Our study finds no indication

that financial satisfaction is going to change drastically, except for one group, i.e., the poorest elders. At present, elders with little income and wealth nonetheless typically express satisfaction with their financial lot, a tendency absent among their younger counterparts.

Will poor individuals in midlife adapt over time to their circumstances? The sparse longitudinal evidence finds a significant inter-cohort effect among the poor (Hsieh, 2002), implying that the next cohort of poor elderly are likely to be less satisfied financially than the poor elderly of today. This prediction is only strengthened by the envisioned increase in financial inequality, predicting that tomorrow's poor people are generally going to perceive a greater gap between their own income and the income of others (Hsieh, 2002). Additional pressures include the purported emphasis on independence, personal fulfillment, and costly lifestyles in future cohorts of the elderly. Hence, social policy needs to pay attention to those "left behind", i.e., those not entering retirement with substantial savings, assets, and private pensions.

Our last implication concerns the value of savings in old age. Most elders typically have considerable savings and continue to save after they retire, even if their income is low (e.g., Halvorsen, 2003). Given, in part, these savings patterns, some commentators argue that old age pensions generally are too generous, and that any additional redistribution to the elderly should go to services rather than cash. They implicitly question the instrumental and psychological utility of these savings, especially in light of state-covered public health care and long-term care in Norway. We find that financial assets are about as important as income to elders' financial satisfaction. Thus, savings indeed appear to confer security and well-being in old age. The value of savings probably lies more in their psychological utility (lowering concerns about future health and home maintenance expenses) than in their practical utility (actual use).

The importance of financial assets in old age therefore ought to interest policy makers. Finding ways of ensuring that elders have a minimum of financial assets might be a political aim towards increasing the quality of life in old age. One option could be to lower the wealth tax for low-income elders. Another option is to consider whether public expenditure in old age should be balanced between yearly pensions and a lump-sum payment for those who enter retirement age without financial assets.

In addition to advocating the use of a wide range of monetary determinants, we suggest that future research should examine some of the limitations or shortcomings of this study:

First, to what extent can our results be generalized to non-Nordic countries? Since the Nordic welfare system acts as a safety net, ensuring health care and preventing people from falling into extreme poverty (Jesuit & Smeeding, 2002), monetary and nonmonetary sources may have an even stronger effect on financial satisfaction elsewhere.

Second, quality of life research needs to investigate which is the better predictor of subjective outcomes in Western societies: individual resources or the resources available to the household as a whole. A related question is by which mechanisms financial resources confer quality of life. Do spending and sense of control or the feeling of success (self-esteem) count the most? The former would predict household resources, and the latter would predict personal resources as the strongest predictor of well-being.

Third, in a similar vein, is survey information or tax record information the stronger predictor of subjective outcomes? This point is important given the likely increase in the use of register data in (European) social research (European Commission, 2001). Fourth, we need longitudinal data to separate aging and cohort effects on financial satisfaction. Fortunately, second-wave data will be available in 2008, giving us a stronger basis for resolving this question.

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**Figure 1**: Age gradients in financial satisfaction by income groups before controls (men)

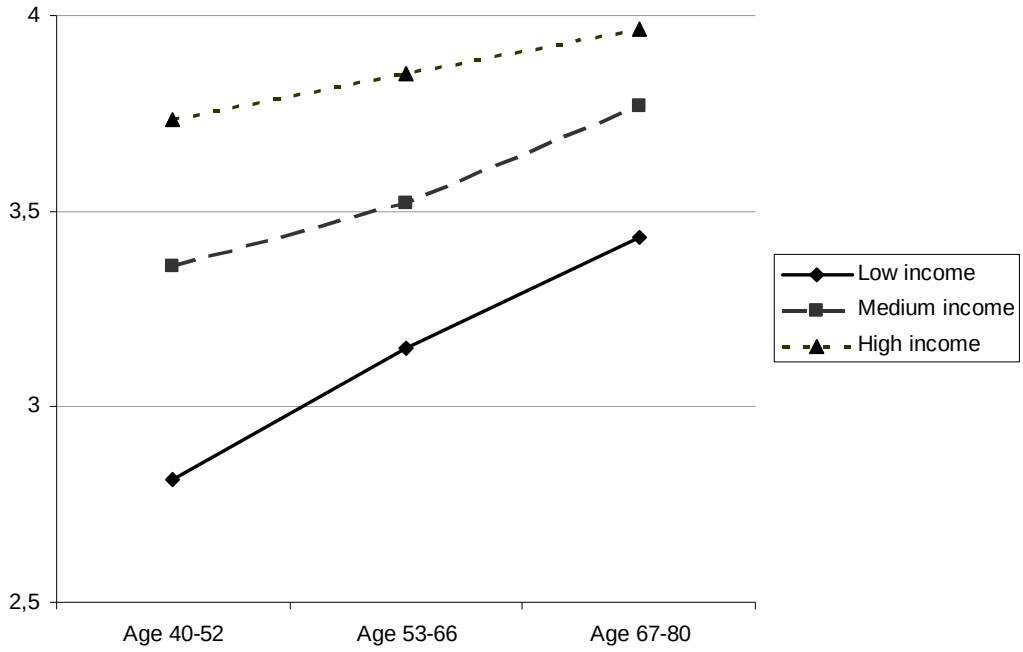


**Figure 2**: Age gradients in financial satisfaction by income groups after control for asset, debt, and controls (men)

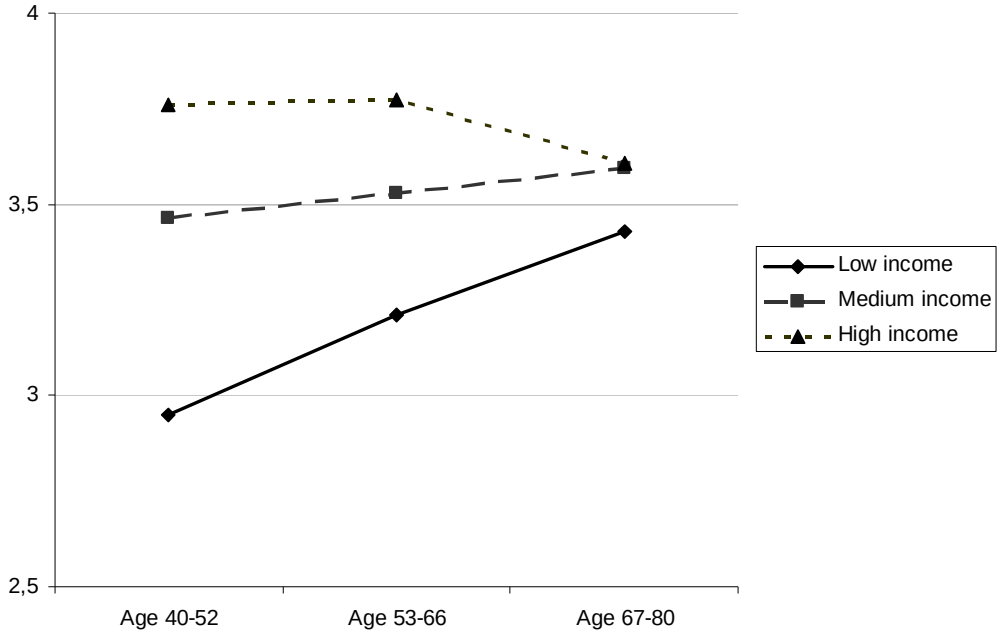


Table 1: Mean (SD) income, property assets, financial assets, debts, and net worth (in US$1,000), mean financial satisfaction, and percentages reporting low financial satisfaction among all men (M) and women (W) across three age groups

| | **N** | | **Income** | | **Property assets** | | **Financial assets** | | **Debt** | | **Net worth** | | **Fin. sat. (1-5)** | | **Low fin. sat. (%)[a]** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | W | M | W | M | W | M | W | M | W | M | W | M | W | M | W |
| **Age** | | | | | | | | | | | | | | | | |
| 40-52 | 674 | 212 | 62.00 | 50.01 | 190.82 | 139.59 | 34.45 | 19.91 | 79.31 | 63.29 | 142.95 | 97.24 | 3.42 | 2.94 | 9.4 | 25.0 |
| | | | (23.51) | (17.53) | (141.92) | (120.09) | (54.09) | (40.46) | (68.09) | (53.44) | (189.98) | (132.47) | (0.79) | (0.87) | | |
| 53-66 | 743 | 240 | 56.58 | 45.08 | 202.53 | 171.82 | 44.49 | 39.44 | 48.99 | 36.60 | 198.76 | 172.95 | 3.52 | 3.25 | 5.5 | 11.7 |
| | | | (24.54) | (19.28) | (144.99) | (127.18) | (57.68) | (53.01) | (60.63) | (47.27) | (176.32) | (146.31) | (0.73) | (0.81) | | |
| 67-79 | 485 | 244 | 39.93 | 34.03 | 183.23 | 143.49 | 56.50 | 53.57 | 14.36 | 12.49 | 228.82 | 182.64 | 3.58 | 3.46 | 2.6 | 5.3 |
| | | | (18.16) | (17.82) | (140.04) | (122.62) | (61.80) | (62.20) | (29.82) | (29.04) | (161.85) | (142.15) | (0.66) | (0.77) | | |
| Total | 1902 | 694 | 54.26 | 42.75 | 193.50 | 152.07 | 43.96 | 38.44 | 51.01 | 36.28 | 186.50 | 153.29 | 3.50 | 3.23 | 6.2 | 13.5 |
| | | | (24.30) | (19.41) | (142.81) | (124.12) | (58.12) | (54.79) | (62.74) | (48.49) | (181.07) | (145.42) | (0.74) | (0.84) | | |
| Pearson's r[b] | | | -.36** | -.36** | -.02 | -.00 | .16** | .26** | -.41** | -.45** | .20** | .24** | .08** | .26** | | |
| F-value/$x^2$ | | | 139.73** | 45.72** | 2.91 | 4.74** | 21.25 ** | 22.83** | 182.53** | 75.62** | 36.60** | 24.45** | 6.70** | 23.03** | 23.53** | 38.64** |

** p< .01 (ANOVA tests, except low financial satisfaction: chi-square test)

*Note*: Women include only unpartnered women. To avoid the strong influence on means and correlations of some extreme values, we set maximum income, assets, and debt at the 95th percentile of the variables' distribution (i.e., all incomes above US$120,806 were set to US$120,806). Net worth equals (property and financial) assets minus debt. [a] Low financial satisfaction = score 1 (great financial difficulties) or 2 (some problems). [b] Correlation between age (continuous) and financial variables.

Table 2: Regressing financial satisfaction on financial variables by gender and age. Multiple linear regressions with unstandardized (standardized) regression coefficients.

| | **Men** | | | | | **Women** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **40-52 y. (N= 673)** | **53-66 y. (N= 742)** | **67-80 y. (N= 484)** | **All (N= 1902)** | **Test of age interaction[1]** | **40-52 y. (N= 209)** | **53-66 y. (N= 234)** | **67-80 y. (N= 240)** | **All (N= 694)** | **Test of age interaction[1]** |
| **Log Income** | 0.492 | 0.431 | 0.375 | 0.411 | ** | 0.811 | 0.592 | 0.505 | 0.501 | ** |
| | (.37 **) | (.34 **) | (.23 **) | (.33 **) | | (.36 **) | (.32 **) | (.26 **) | (.27 **) | |
| **Log Property assets** | 0.026 | 0.018 | 0.017 | 0.018 | | 0.015 | 0.018 | 0.013 | 0.012 | |
| | (.11 **) | (.09 **) | (.08 **) | (.09 **) | | (.08) | (.09) | (.05) | (.06) | |
| **Log Financial assets** | 0.060 | 0.061 | 0.081 | 0.070 | | 0.096 | 0.108 | 0.085 | 0.109 | |
| | (.21 **) | (.22 **) | (.25 **) | (.24 **) | | (.27 **) | (.32 **) | (.25 **) | (.33 **) | |
| **Log Debt** | -0.025 | -0.022 | -0.011 | -0.022 | | -0.057 | -0.027 | -0.029 | -0.047 | |
| | (-.13 **) | (-.14 **) | (-.07 **) | (-.15 **) | | (-.21 **) | (-.14 *) | (-.19 **) | (.21 **) | |
| **$R_{adj}^2$** | .24 | .28 | .20 | .25 | | .29 | .31 | .27 | .29 | |
| **$R_{adj}^2$ only income** | .17 | .20 | .14 | .14 | | .15 | .18 | .18 | .07 | |

* p <.05 ** p <.01 [1]Linear interactions tested one pair at a time, controlling for age and all financial resources variables

Table 3: Regressing financial satisfaction on age, financial variables, and controls. Multiple linear regressions with unstandardized (B) and standardized (β) regression coefficients. Men and unpartnered women.

| | **Men** | | | | | | | | **Women** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M1 | | M2 | | M3 | | M4 | | M1 | | M2 | | M3 | | M4 | |
| | *B* | *β* | *B* | *β* | *B* | *β* | *B* | *β* | *B* | *β* | *B* | *β* | *B* | *β* | *B* | *β* |
| Age | F = 6.70 ** | | F = 52.63 ** | | F = 5.23 ** | | F = 7.94 ** | | F = 23.03 ** | | F = 56.20 ** | | F = 17.68 ** | | F = 15.04 ** | |
| 40-52 (ref.) | | | | | | | | | | | | | | | | |
| 53-66 | 0.11 | .07 ** | 0.15 | .11 ** | 0.06 | .05 | 0.08 | .06 * | 0.28 | .16 ** | 0.41 | .24 ** | 0.20 | .12 ** | 0.18 | .10 * |
| 67-79 | 0.15 | .09 ** | 0.35 | .25 ** | 0.13 | .08 ** | 0.19 | .12 ** | 0.51 | .29 ** | 0.86 | .50 ** | 0.37 | .25 ** | 0.45 | .26 ** |
| Log Income | | | 0.48 | .42 ** | 0.38 | .33 ** | 0.34 | .29 ** | | | 0.76 | .43 ** | 0.58 | .33 ** | 0.54 | .30 ** |
| Log Property assets | | | | | 0.02 | .08 ** | 0.01 | .07 ** | | | | | 0.01 | .04 | 0.01 | .03 |
| Log Financial assets | | | | | 0.07 | .24 ** | 0.07 | .24 ** | | | | | 0.10 | .30 ** | 0.10 | .30 ** |
| Log Debt | | | | | -0.02 | -.11** | -0.02 | -.11 ** | | | | | -0.03 | -.18 ** | -0.03 | -.17 ** |
| Partner by empl. status | | | | | | | | | | | | | | | | |
| Unpartnered (ref.) | | | | | | | | | | | | | | | | |
| Partner, not working | | | | | | | 0.01 | .01 | | | | | | | na | |
| Partner, works part-time | | | | | | | 0.09 | .05 * | | | | | | | na | |
| Partner, works full-time | | | | | | | 0.18 | .12 ** | | | | | | | na | |
| Children (0-3) | | | | | | | -0.04 | -.05 | | | | | | | -0.16 | -.10 ** |
| Health (1-5) | | | | | | | 0.10 | .14 ** | | | | | | | 0.10 | .13 ** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $R_{adj}^2$ | .01 | .17 | .24 | .27 | .07 | .22 | .32 | .34 |

* p< .05, ** p< .01. na= not applicable.

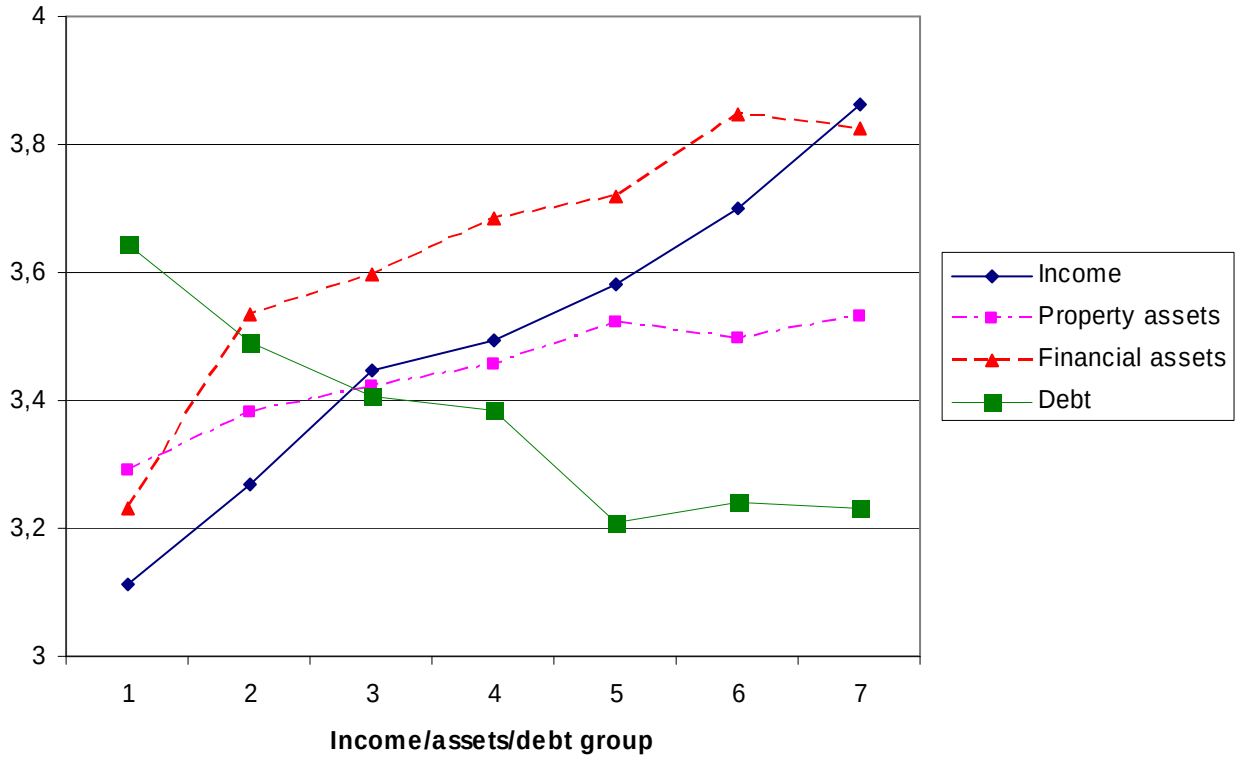
## Appendix

Table A: Intercorrelations among all men and single women. Women in the upper right corner (in bold), men in the lower left corner.

| | Age | Partner | Children | Health | Log Income | Log Property Assets | Log Financial Assets | Log Debt | Financial satisfaction |
|---|---|---|---|---|---|---|---|---|---|
| Age | | | **-.37** | **-.22** | **-.39** | **(-.02)** | **.22** | **-.48** | **.28** |
| Partner | (-.04) | | | | | | | | |
| Children | -.52 | .18 | | **.09** | **.16** | **(.00)** | **-.07** | **.21** | **-.18** |
| Health | -.16 | .06 | .13 | | **.41** | **.14** | **(.05)** | **.16** | **.19** |
| Log Income | -.29 | .08 | .16 | .28 | | **.27** | **.24** | **.30** | **.27** |
| Log Property assets | (-.03) | .17 | .07 | .15 | .21 | | **.26** | **.23** | **.16** |
| Log Financial assets | .19 | (.03) | (-.03) | .11 | .27 | .29 | | **-.24** | **.45** |
| Log Debt | -.45 | .06 | .21 | .10 | .26 | .16 | -.15 | | **-.24** |
| Financial satisfaction | .08 | .10 | (-.03) | .23 | .37 | .20 | .39 | -.08 | |

p< .05, except ( ).

Figure A: Mean levels of financial satisfaction by income, assets, and debt groups (1-7), controlling for the other financial variables




*Note*: Groups 1-7 are categorized differently for income (using US$10,000 intervals, i.e. 20-30,000, 30-40,000, etc), property assets (US$50,000 intervals), financial assets (US$20,000 intervals), and debt (US$20,000 intervals). Note that category 7 is open-ended, i.e. it has a long right-tale (e.g., for income is includes incomes from US$80,000 and above). To estimate adjusted mean levels of financial satisfaction, we used analyses of covariance (procedure General Linear Model in SPSS).

***Notes***

1 We avoid at least three problems associated with the use of household level economic data. First, we avoid the problematic choice of whether and how to adjust household income for household composition, choices that typically lead to divergent conclusions when comparing the resources of the elderly and nonelderly (Quinn, 1987). Second, we avoid the controversial premise that all household members get an equal share of available resources (Radner, 1992). Third, "given the comprehensive nature of total family income, an individual reporting his/her psychological well-being may not be consciously aware of the totality of income received from all sources and thus not be able to express a sense of psychological well-being reflective of the total family income reality" (Mullis, 1992, p. 124). However, the typical assumption in the literature is that financial satisfaction is more closely related to the monetary resources available to the household as a whole than to the individual personally. This assumption deserves further investigation because the literature has not yet concluded which income is the better predictor of financial satisfaction (Hsieh, 2001). Although Rojas (2006) found that household income is more important for individual happiness than personal income in collectivist Mexico, indications are that the opposite may be the case in more individualistic societies. Ahuvia (2002), for example, notes about the U.S. that in two-income couples, individual income is more associated with happiness than joint income, even though joint income determines spending. The feeling of success, not the spending, is what counts. Pahl (2005) reports changing patterns of money management in the UK and elsewhere, and argues that couples are becoming more individualised in their finances, especially when the partners' incomes are broadly equivalent. The same may also hold for Norway, which is considered highly individualistic (Veenhoven, 1999) and ranks as one of the world's highest on gender equality measures (e.g., women's average monthly pay was 84.5 % of men's in 2004). Additionally, social benefits in Norway are linked mainly to the individual and not to the family, so that married women have rights independently of their husbands.

[2] In the 2002 Living Conditions Survey, among persons aged 40-79 who are living with a partner, personal and household income are correlated .91 for men and .47 and women (similarly .96 and .62 for property assets and .94 and .31 for debt). As indicated, the partner's financial resources may be the best indicator of financial circumstances for a sizeable portion of women. This finding relates to their greater chance of working part-time or being out of work (due to pregnancy, etc.).

[3] Official statistics on real estate (one component of property assets) are in the form of the *taxable* value of this property. The taxation value of homes and other real property is much lower than their real market price, typically about 20% of the market value (Statistics Norway, 2005). The modal response in Norwegian social research has been to multiply property assets by 5 to gain an approximation of the real market value of such assets (Statistics Norway, 2005). We adopted this approach. The taxation value of motor vehicles is typically close to the market value.

[4] Others have documented the covariates' relationships to age, income, and financial satisfaction (Praag & Ferrer-i-Carbonell, 2004; Seghieri et al., 2006; Vera-Toscano, Ateca-Amestoy, & Serrano-Del-Rosal, 2006; Zimmermann, 2006). These covariates have two purposes: first, as a means of exploring how the nonmonetary costs and resources affect financial satisfaction in midlife and old age, and, second, as potential mediators of the relationship between age and financial satisfaction.

[5] We tested the linearity of the relations between age and financial variables and age and financial satisfaction by adding squared terms of age (in addition to the linear effect) in linear regressions. We found that most correlations are indeed linear. The exceptions are the associations between age and income among men (the downward trend for income increases with higher age), age and property assets among men and women (inverse U-shaped curvilinear trends), and age and net worth among men and women (diminishing age effect, no significant increase beyond age 66 among women).