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Financial Well-Being Components

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Abstract The reported study advances psychological theory of well-being by offering deeper insight into the factors underlying financial well-being (FWB) in particular. An empirical investigation conducted into the determinants of FWB for two population groups, young workers and families with young children in the UK. Their financial decisions have important consequences for their households. A substantial internet survey of 654 people was conducted, which identified the most significant drivers of FWB or satisfaction, which is analogous to the measurement of subjective well-being in the domain of healthcare. The most significant finding from the regression is the significance for both groups of having control over their finances; control is even more important than the amount of available money for this population. A conclusion of the research is that the FWB would be increased if individuals could experience a greater sense of overall control of their money. In particular, financial institutions could provide products and processes to improve the FWB of their customers. There are also potential policy implications from the benefits of lower unsecured debt and increased savings to mitigate unexpected life events.

Keywords Subjective well-being · Happiness · Financial well-being · Decision making

1 Introduction

1.1 Accounts of Human Well-Being

Financial circumstances affect human happiness, or subjective well-being (SWB), in various guises. Following Parfit (1984), we can distinguish between three broad accounts of well-

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being. The first is based an *objective lists* account: things that others decide we 'need' e.g. good health, education, clothes, dinning out, etc. The 'objective list' focuses on health and lifestyle insofar as there are elements of lifestyle deemed by objective list accounts to be conducive to the 'good life'. For example, body-mass index (BMI), health-related lifestyle (diet, exercise etc.), measures of health status widely used in the economic evaluation of health care (Propper 2005), and measures focussed on engagement and participation in sport and leisure (often relating directly to the objectives and targets of government policy).

The second account is based on *preference satisfaction*: things that we 'want' e.g. participation in community affairs, participation in sport, use of public transport, etc. Measures of 'preference satisfaction' usually ask respondents about the limitations and barriers that prevent them from doing what they would like to in relation to, for example, sporting and leisure facilities. The third account is based on *mental states*: direct assessments of thoughts and feelings. Academics and policy-makers are showing increasing interest in our 'thoughts and feelings'—in our assessments of our SWB which is "a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" (Diener et al. 1999).

Studying SWB is important because of its wide ranging effects on the individual. For example, SWB affects human physiology, which is line with recent research showing a strong association between measures of positive affect and markers of physical health status (e.g., immune, cardiovascular, and pulmonary function) (for recent reviews see Pressman and Cohen 2005; Salovey et al. 2000). SWB is also assumed to cause behavioural responses like approach and avoidance, which supported by the evidence (see Diener et al. 1999). For example, Clark et al. (1998) show how job satisfaction predicts quitting your job. Gardner and Oswald (2006) demonstrate that lower life satisfaction predicts marital break-up too. There is also evidence that low SWB can be a precursor to other issues and problems in people's lives, such as poor mental health (Valois et al. 2004). SWB has also been shown to cause other things that policymakers care about (health, education etc.), so analysing policies that increase children's health and SWB together will produce consequential benefits in terms of outcomes. Thus, research on SWB convincingly demonstrates that exposure to certain life events and circumstances, like stressful experiences during financial hardship, may have wide ranging implications for human and social welfare. SWB is increasingly being considered as an appropriate metric for policy analysis (Dolan and White 2007).

1.2 Measuring Aspects of Well-Being

Here we focus on the relationship between SWB and the financial aspects of the 'human condition' in addition to the one-dimensional measure of 'income' which has shown very weak relationship with overall happiness (Easterlin et al. 2010). Thus, the reported study advances psychological theory of SWB by offering deeper understanding of the factors underlying financial well-being (FWB) in particular. Individual financial affairs have obvious 'tangible' consequences, such as, for example, an older car or a smaller house. However, any study of the 'intangible' effects of money should seek to assess their impact across all accounts of well-being. There is, however, considerable uncertainty about precisely what should be measured, and how (Dolan and White 2007). There are many ways of tapping into different components of our thoughts and feelings, which feed into attempts to integrate these measures in ways that would allow us to fully represent an individual's SWB over time. Policy-related measures of SWB predominantly elicit global evaluations of the SWB individuals through assessments of satisfaction with life as a whole and with particular aspects of their life (Dolan et al. 2008); and those responses correlate predictably with many objective circumstances (Lyubomirsky et al. 2005; Clark et al. 2008), they are prone to being influenced by the "focusing illusion" (Kahneman et al. 2006; Schkade and Kahneman 1998), whereby people focus on aspects of their circumstances that may not impact so much on the experiences of their lives. Because of these problems, Kahneman et al. (2004) have developed the Day Reconstruction Method (DRM) to capture the various moods associated with activities throughout the day; while White and Dolan (2009) pointed out that this measurement of SWB omits an important aspect of our daily well-being—the feelings of reward (or meaning or purpose) that we get from everyday activities and that we know to be important to us. In summary, these components further develop and refine the distinction between the experiencing and evaluating selves (Kahneman and Riis 2005).

In order to overcome the focusing illusion, and as an alternative to the costly and laborious DRM, we offer a new approach to understanding and measuring FWB which is based on identifying the specific financial circumstances and behaviours in one's life that influence SWB. Such measure is analogous to measurement of SWB in healthcare where, in addition to the overall level of satisfaction with domains of life such as health and finances, aspects of health-related SWB involve more sensitive measures of various specific health states (see Bowling 1997). Such sensitive measures are needed for better policy analysis and policy intervention (targeting specific aspects of FWB).

1.3 Outline of the Structure of the Article

In the remaining three sections of this article, we present our research into the determinants of FWB for two population groups, young workers and families with young children. The next Sect. 2 describes the design of the study (aims, samples, methodology). The subsequent Sect. 3 presents the results where we uncover the factors underlying FWB, which is supported by the regression analysis of the determinants of financial satisfaction. Section 4 discusses in more detail the components of these factors and the implications for young workers and families and for money management. The final Sect. 5 concludes and outlines the practical implications for financial institutions such as providing products and processes to improve the FWB of the population.

2 Discovering the Financial Well-Being Factors

2.1 Research Aims

The aim of this article is to advance psychological theory of well-being by offering deeper understanding of the factors underlying FWB in particular. In addition, the more practical objective is to identify whether governments and financial institutions, such as banks, can improve the well-being of their citizens and customers, respectively. A measure of FWB will be fit to determine whether the services offered are "satisfying" those using them. If the key components of FWB can be identified, it may be possible to target these specifically for the benefit of individuals and/or households. The work was financed by the Fairbanking Foundation, a not-for-profit, with the objective of furthering its work in assisting the UK population to be able to improve the management of money through better financial products. Many customers of financial institutions over-spend and do not save; financial institutions could do more to assist customers if the behaviour was better understood. The Fairbanking Foundation is seeking to have further evidence of positive behaviour in order to identify opportunities for interventions.

2.2 Data and Methodology

We gather primary data from two sub-groups of the population. Individuals were invited to participate from a commercially available database which was representative of the UK population. There was a wide range of response to the well-being questions enabling the statistical analysis. The first group involves *young workers*, aged 18–29, working full-time. The second is *families*, where the person answering the survey is 25–39 years old, has at least one child under the age of 16 living at home, and who (and/or his or her partner) is working full-time. These two groups are of particular interest, as young workers face money management challenges in the entry or early stages of their career and the family respondents face the challenges of meeting or balancing the various financial demands of family members. These two groups are known to have particular needs in the field of financial capability from work undertaken by the UK's Money Advice Service, which has a focus on "younger people starting out" and "stretched families".

The methodology consisted of the following stages:

(a) *Qualitative research:* During July–August 2008, a series of face-to-face interviews was held with 14 individuals who managed their household finances (6 interviews were conducted in London, 4 interviews in Birmingham and 4 interviews in Manchester). There were two detailed 1 h interviews with a questionnaire of each person with a 1 week gap during which the person kept a diary of expenditure. The process began with a structured 1-h interview, where the interviewee kept a diary of expenditure for a week. This was followed by a further 1-h interview to consider the diary and further questions. The purpose of this stage was to determine the questions to be asked in the quantitative stage using a grid of responses attempting to identify common themes.

(b) *Quantitative research*: An online survey of 654 individuals was conducted between November–December 2008. The survey took about 30 min to complete. Respondents were split almost equally between young workers (334 respondents) and families (320 respondents). Respondents were eligible to participate in the survey only if they had a current account.

Analysis: Regression techniques (see "Appendix 2") were used to identify the key factors for the FWB indices for both young workers and families. In this case, the dependent variable was the response to the question "how satisfied are you with your overall financial circumstances?" with the answer given on a seven-point scale.

3 Results

3.1 Sample Descriptive Statistics

Descriptive statistics for each group are offered in "Appendix 1". To summarise, individuals in both groups have a current account and a gross annual household income in the range of £15,000–£60,000. Young workers are either single (38 %) or married/co-habiting (62 %). The majority of family respondents are married/co-habiting (98 %) and have two children (46 %). Respondents in this group had either sole (27 %) or joint (73 %) responsibility of their household finances.

3.2 Financial Well-Being

We start by correlating three measures of well-being: (1) satisfaction with overall financial circumstances, 1–7 scale ranging from 'very satisfied' to 'extremely dissatisfied'; (2) a MacArthur-type Ladder of self-positioning oneself on a step of the ladder, 0–10 where 10 denotes the best possible life for you; and (3) FWB, defined as 'having enough money left over for non-essentials to live your life', 1–10 scale where 10 denotes 'extremely good'. All these different scales were used in order to capture as much variance as possible in relation to this underlying construct and also for validity purposes; which is especially justified given the complexity of the FWB construct and also given that this is the very first investigation of this phenomenon.

There was a high degree of correlation between responses to these three measures. We find a strong relationship between life 'situation' and financial satisfaction (r = 0.6), a moderate relationship between financial satisfaction and overall quality of life (r = 0.44), and a strong relationship between FWB and financial satisfaction (r = 0.6).

Invariably, income has an influence on financial satisfaction: in fact, 37 % of respondents who did not rate their FWB as excellent claimed a perceived insufficiency of income was preventing them from giving a better rating on this measure. When exploring, however, the relationship between financial satisfaction and income in more detail, it is clear that financial satisfaction does not automatically increase with income levels; see Table 1, where white cells show a higher than average percentage and black cells show a lower than average percentage.

Further correlation analysis suggests that the relationship between financial satisfaction and personal income is weak (r = −0.16). In other words, while a relationship between the two variables exists, income by itself does not have a strong relationship with financial satisfaction. In fact, financial satisfaction needs to be understood within the context of lifestyle, wider aspirations and disposable household income. And, as an amalgamation of

Table 1 Cross tabulation of financial satisfaction and personal income

Personal Income	How satisfied would you say you are with your overall financial circumstances?						
	Extremely satisfied	Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Extremely dissatisfied
	N = 3	N = 28	N = 221	N = 115	N = 186	N = 67	N = 34
£17,500	0.00%	4%	3%	5%	9%	6%	15%
£22,500	0.00%	21%	10%	15%	13%	16%	12%
£27,500	0.00%	4%	19%	30%	23%	22%	21%
£32,500	0.00%	7%	7%	10%	10%	6%	9%
£37,500	0.00%	11%	7%	3%	8%	4%	9%
£42,500	33.30%	18%	17%	9%	11%	18%	6%
£47,500	0.00%	4%	16%	12%	14%	16%	15%
£52,500	33.30%	7%	14%	9%	7%	10%	15%
£57,500	33.30%	25%	7%	7%	5%	0%	0%

these influences, a key variable that needs to be taken into account is the level of household debt.

Household debt on its own has a moderate relationship with financial satisfaction (r = 0.31). If, however, we use the debt to income ratio, we establish a slightly stronger relationship (r = 0.34). This implies that the higher the ratio of debt to income is, the lower the financial satisfaction of the respondents. What it also means is that while respondents are likely to say they wish to see an increase in their income, having such may not translate into an increase in financial satisfaction if their debt level is relatively high.

Clearly, there is more to our happiness than finance, but to achieve satisfaction in this important area will lead to us moving further up the ladder to achieving the best life we can have. The link between financial capability and psychological well-being was explored in a report commissioned by the UK Financial Services Authority, which uses data from the British Household Panel Survey (1991–2006) to show that one additional serious financial problem affects life satisfaction by the equivalent of divorce/separation (Taylor et al. 2009).

Every person interviewed in our study was asked for a definition of FWB, to compare with the definition from the qualitative study, which was 'having enough money left over for non-essentials "to live your life"'. The following elements dominated the 654 responses:

- Enough money to pay for essentials with some left for non-essentials (luxuries)—78 %.
- A lack of worry about finances, feeling secure—31 %.
- Ability to save (contingency savings, pension, saving for future purchases)—17 %.
- Not too much debt—16 %.

Based on these responses, a household with high FWB would *not be worried because it would be exercising sufficient control to have enough money to pay for essentials, to have some left over for luxuries, to service its debts, to have savings for the unexpected and be saving regularly*. This does not seem too ambitious a definition at first. However, there are a number of challenges that a household will need to attend to in order to keep well-being levels high. The key questions appear to be: *How does a household exercise control?*

What is an essential? What is a luxury? What is manageable debt? How much contingency savings should be kept? How can savings (including pensions) be managed?

These can be challenging questions, especially when life events cause the situation to change. There are no obviously correct answers and, at first sight, the easiest solution would simply be to focus on getting more money. That, however, would not solve the problem. The statistical analysis that follows shows the most important factors that determine financial satisfaction for young workers and families.

3.3 Key Factors in Financial Well-Being

3.3.1 Attitude to Financial Matters

In the research, respondents gave scores for a battery of statements about their attitudes to financial matters. Factor analysis (which groups individual attitude statements into key themes) was conducted on responses in order to reveal overarching attitudes. Variables that had a low correlation with all other variables were removed. A four-factor solution accounted for 61.1 % of the overall variance in respondents' attitude (factor 1 = 25.2 %; factor 2 = 14.1 %; factor 3 = 12.0 %; factor 4 = 9.8 %). Lists of these four factors, together with the statements that comprise them, are shown in Table 2. The underlying data analysis is contained in Table 14 in "Appendix 2".

Table 2 Factor analysis output (total sample)

1. Being in control (overall finances)	2. Comfort with being in debt	3. External pressures affecting borrowing	4. Ability to influence situation
I feel I am on top of my monthly outgoings (0.788)	Borrowing makes me feel uncomfortable (−0.783)	I find it difficult to resist pressure to "keep up with the Joneses" (0.778)	I think it is easy to get into debt because banks and shops make it too easy to get credit (0.874)
I know the detail of my financial situation at all times of the month (0.787)	I am comfortable with borrowing for something that I consider to be essential (0.769)	In order to keep in touch with friends, I spend money that I would rather not spend on going out (0.727)	I adjust the amount of money I spend on non-essentials when my life changes (0.556)
I feel comfortable dealing with financial matters (0.786)		I always use credit for non-essential items (0.590)	
I only spend within my means (0.572)			

The scores in brackets above relate to the factor loading or contribution of each attribute, which shows the direction of relationship and the relative strength for each factor. A positive score means that agreeing with the statement will have a positive influence on the factor. All variables that low or equal loadings across each the four factors were removed, and deemed to be independent of the four factors extracted.

Factor 1—Being in control: The most important factor is 'being in control'. This factor is broadly about being in full control of overall and monthly finances, and adjusting spending habits accordingly. Three equally significant statements make up this factor: "Feeling on top of my monthly outgoings"; "I know the detail of my financial situation at all times of the month", and "I feel comfortable dealing with financial matters". The statement "I only spend within my means" is a fourth contributor.

Factor 2—Comfort with being in debt: Comfort with being in debt is derived from the comfort people feel with being in debt and with borrowing money. The statement "Borrowing makes me feel uncomfortable" has a negative influence on this factor, while the statement "I am comfortable with borrowing for something that I consider to be essential" has a positive influence.

Factor 3—External pressures affecting borrowing: This factor is concerned with the external pressure people feel on their spending habits and a willingness to dip into credit for 'non-essential' expenses. Its most important components are the statements "I find is difficult to resist pressure to 'Keep up with the Joneses'" and "In order to keep up with friends, I spend money that I would rather not spend on going out". There is also a third statement that had a lower factor loading: "I always use credit for non-essential items".

Factor 4—Ability to influence situation: Finally, the ability to influence my financial situation factor is concerned with the extent to which individuals perceive they are able to control their debt. The factor is made up of two statements: the dominant component is "I think it is easy to get into debt because the banks and shops make it too easy to get credit". But there is also a secondary component: "I adjust the amount of money I spend on non-essentials when my life changes".

Cronbach's Alpha was calculated for each factor to determine its reliability as an independent variable in a regression analysis (see Table 15 in "Appendix 2"). While the first three factors reported a strong Cronbach's Alpha, the fourth factor had a very low score (0.28) suggesting that it would not be appropriate to include this factor in the regression analysis.

3.3.2 Regression Analysis: The Determinants of Financial Satisfaction

Three separate regressions were conducted; one for each of the sub-groups of interest—i.e. total sample, families, and young professionals. Regression enables us to understand the relative impact that a number of (independent) variables have on a dependent variable, in this case financial satisfaction.

The inputs (independent variables) to each regression model we produced were the variables from research that were likely to impact on financial satisfaction—factors 1–3 from the factor analysis, and all other attitudinal statements that were not included in one of the factors. The resulting regression coefficients for each independent variable are shown in Table 3 (see Table 16 in "Appendix 2" for more detailed presentation of the regression results).

In the above table, only the regression standardized coefficients having a statistically significant impact on financial satisfaction are shown. The higher the coefficient, the greater the variable is related to financial satisfaction. Collinearity statistics were calculated to assess any potential violations of the assumptions inherent in the regression; both the VIF and Tolerance statistics for models were within acceptable levels for all variables, validating the model (see Table 16).

Table 3 Summary of the regression coefficients

	Total	Families	Young workers
Being in control (factor 1)	0.467	0.481	0.435
Comfort with being in debt (factor 2)			
External pressures affecting borrowing (factor 3)			
"I adjust the amount of money I spend on non-essentials when my life changes"	−0.117	−0.144	
"I think it is easy to get into debt because banks and shops make it too easy to get credit"			
Personal income			0.202
Debit to income ratio	−0.229	−0.226	
"It's better to live your life and enjoy it, rather than worry about money"	0.138	0.177	0.165
"It's important to save up for things I/we want"			
"I think of my money in terms of "pots" put aside for different things"	0.079		0.196
"I find it difficult to resist buying things/paying for activities for my children"	N/A		N/A

A number of different coding methods were used to test the impact of personal income. Income data was collected using a categorical scale, and three different categorisations were used to test its significance: (1) coding of mid points to form a quasi-continuous scale; (2) using dummy variable for high and low income; and (3) using dummy variables for low, medium and high Income bands. Irrespective of the categorisation used, personal income was not a statistically significant determinant of financial satisfaction for the total sample or for families; the ratio of income to debt was more important for these groups.

Across the total sample, being in control was the most important determinant of financial satisfaction, and the ratio of debt to income was the second most important. The statement, ‘better to live your life and enjoy it’ was also a strong contributor, while other variables that were less strong (but still statistically significant) were adjusting the amount of money spent on non-essentials when life changes and using different pots as a strategy for managing money.

A number of the variables included in the regression model did not have a significant influence on financial satisfaction: the factors of comfort with being in debt and whether or not external pressures affect borrowing, as well as the attributes ‘it’s easy to get into debt because banks and building societies make it too easy to get credit’ and the importance of saving to reach your goals.

A regression model was applied for those who had children using the same variables as the total sample, but with inclusion of the statement “I find it difficult to resist buying things/paying for activities for my children”. As in the overall model, the most important factor overall was being in control, and the second most important driver was the debt to income ratio. Adjusting the amount of money spent on non-essentials and the statement that it’s better to live your life and enjoy it, meanwhile, were stronger drivers among families than in the total sample. This reflects the change in life-stage, where people adjust their outlook because of their family responsibilities. The statement that was added for this group only, “I find it difficult to resist buying things/paying for activities for my children”, was found not to be a significant driver of financial satisfaction.

Finally, the regression was repeated for the young professionals group. Again, the most important driver of financial satisfaction is being in control. The second most important driver is personal income. “I think of my money in terms of ‘pots’ put aside for different things” and ‘better to live life than enjoy it, rather than worry about money’ were also significant drivers. Interestingly, the debt-to-income ratio was not a statistically significant driver of financial satisfaction for this group.

4 Discussion

In summary, there are four statistically significant factors that drive FWB for each of the two groups, listed in Table 4. Factor 1 is twice as important as any other factor, while Factor 4 is statistically significant, but represents only about a third of the importance of Factor 1.

This section discusses the components of these factors, starting with the first—‘being in control’ of overall finances (Factor 1)—which is the most important determinant of FWB.

4.1 Control of Overall Finances

The attitudinal statements that contribute to this factor are illuminating. These include: being “on top” of monthly expenditures; knowing the detail of one’s financial situation at all times; spending within one’s means; and having a high degree of comfort dealing with financial

Table 4 Factors driving FWB

	Young worker	Family
Factor 1	Control of overall finances	Control of overall finances
Factor 2	Gross income	Ratio of unsecured debt to gross income
Factor 3	Think of money in terms of "pots" put aside for different things	Better to live life and enjoy it rather than worry about money
Factor 4	Better to live life and enjoy it rather than worry about money	Adjust the amount of money spent on non-essentials when life changes

matters in general. This factor ought to be measurable and ought to be possible to influence positively. Through its availability, the banking industry ought to be able to ensure that its products are designed to meet a need for greater FWB. This does not just relate to the problem of debt, but also to the complexity of having multiple bank accounts, savings accounts, loans and credit cards. Our results suggest that in each group the more the respondent agrees with each statement, the more likely it is that he/she will have a high level of FWB.

The primacy of "control" could be viewed as surprising; however, the striking thing about those people is that they are more content on a tight budget than when spending freely but without control. A preference-based account would interpret decreased spending as deterioration in lifestyle, but according to the SWB account their overall FWB appears to have risen.

4.2 Gross Income and Unsecured Debt to Gross Income Ratio (DIR)

It is not surprising that gross household income should feature in determining FWB for young professionals; although being less important than overall control of finances. For young workers, the higher the level of gross household income that is received, the greater will be the level of FWB. It is surprising that gross income is not a significant factor for families. It is also an interesting finding that, for young workers, the unsecured debt to gross household income ratio is almost statistically significant. This is developed in the next section.

4.3 Unsecured Debt to Household Income Ratio ('DIR') and Families

This is a clear factor in financial satisfaction for families. Numerous questions in the survey produced answers that were significantly different depending on the level of unsecured debt as a percentage of gross income (see "Appendix 3"). It is not simply that there was a break point at which the debt burden became too great. The relationship identified in this survey is significant since, as it has been noted in previous research it is difficult to get an accurate reply to questions on unsecured debt (May et al. 2004). It is likely that the ratios understate the level of debt as a percentage of income, since many people underestimate the level of debt owed. At the end of 2008, the level of debt as a proportion of income was a very significant factor in well-being that out-weighed absolute income for the families in the study. The results suggest that even at low levels of debt as a proportion of income, well-being decreases as the ratio rises.

In contrast, young workers appear to be better able to cope with higher debt levels. The DIR is not a significant factor for FWB. It is not possible to say whether this is a temporary phenomenon, but the implication is that as young workers move to the family life-stage, the debt acquired becomes a more difficult problem.

4.4 "It is Better to Live Your Life and Enjoy it Rather than Worry About Money" (Factor 4 for Young Workers and Factor 3 for Families)

This factor is significant in the context of FWB and its inclusion is thought-provoking. The suggestion is that people can gain FWB by believing that money is an enabler of the good things in life. If you agree with this statement, you are more likely to have high FWB; if you disagree, you are more likely to have low FWB. At its most extreme, this attitude could lead to reckless financial behaviour. However, when balanced with good control of finances and/or low debt, it should allow people to put financial matters into perspective. The implication is that, in order to achieve a high level of FWB, strong agreement with this statement needs to be balanced with a level of control that ensures that money worries do not interfere with the ability to live life and enjoy it. Strong agreement in isolation from control may mean that temporary financial satisfaction is obtained, but at the expense of financial difficulties in the future.

4.5 Think of Money in Terms of "Pots" Put Aside for Different Things (Factor 3 for Young Workers)

The regression analysis shows that this is a factor unique to the young worker: financial satisfaction is higher for young workers if *they think of money in terms of "pots" put aside for different things*. Young workers between the ages of 18 and 29 are learning how to manage money. They are entering the world of paying for accommodation, for utilities, for transport, for a myriad of entertainment choices. It appears important for their FWB to have a method of dividing these financial demands into categories. This could be viewed as a sub-set of financial control. The difference is that the overall 'control' factor involves living within one's means by monthly monitoring and management. The concept of "pots" indicates an element of planning for the future; an attempt at ensuring that one type of expenditure does not lead to other types of expenditure having to be curtailed.

4.6 Adjust the Amount of Money Spent on Non-essentials when Life Changes (Factor 4 for Families)

Overall, this factor is the least important for the family group, but it still has statistically significant impact on financial satisfaction. The ability to respond to life changes is a core skill. The more that a person can respond to life events, the more likely he or she is to be able to reduce financial worries and avoid getting into financial difficulty.

4.7 The Implications for Young Workers and Families of the FWB Factors

In order to understand the implications of the factors, it is worth considering the life events that the young worker and the family are trying to manage (see Table 5).

4.7.1 Young Worker Life Events

The survey asked which life event had the most significant financial effect in the previous 3 years. For 37 % of young workers, it was property-related; 23 % had bought a property for the first time and 14 % had moved house. The second most important life change was getting married or starting living with a partner (15 %). Table 5 is a summary of the items

Table 5 Life events for young workers

Population	Life event with greatest financial impact in last 3 years	Experienced it (%)
Young workers	Bought property for first time	23
	Got married or started living with partner	15
	Moved house	14
	Changed job to work for different employer	14
	Finished my education	10
	My partner or I started full-time education	8
Families	Having first child	27
	Moved house	15
	Having another child	14
	Got married or started living with partner	9
	Bought property for the first time	8
	Changed job to work for different employer	8
	Redundant or lost job	7

identified by the largest proportion of young workers. Fifty percent of respondents had not recovered financially from the life event, although 27 % had recovered in 6 months or less.

4.7.2 Life Events for Families

Table 5 also summarises the items identified by the largest proportion of families. The most significant life event is having children. Having children was the event that had the greatest financial impact for 41 % of respondents. This was followed by moving house, which had the greatest impact for 23 %. This was followed by job-related events—notably, changing employer (8 %) and redundancy or job loss (7 %). Fifty percent of respondents had not recovered financially or returned to normal following the event, although 32 % had recovered in 6 months or less.

4.8 Implications of the Factors for Money Management

4.8.1 Control of Overall Finances

This is the most significant factor driving FWB for these population groups. The basic requirement is the importance of keeping track of finances, living within one's means and feeling comfortable with financial matters. These are simple objectives, but there may not be simple solutions that achieve these behaviours. In order to achieve control, it may be in the interest of these households to sacrifice some interest income on savings or pay a higher rate on debt. The simplification of product holdings or the selection of products that increase control could bring well-being benefits.

4.8.2 Unsecured Debt to Household Income Ratio

The higher the unsecured debt: income ratio, the lower is the FWB of families, so it is legitimate to encourage families not to take on unsecured debt. In addition, given that young workers are the families of the future, the same conclusion could apply to this population group. Young workers who borrow could be encouraged to repay or encouraged to develop the ability to save. Even at low levels of debt, there is a detrimental effect on FWB and on overall well-being. Reducing and avoiding non-mortgage debt where possible for both young workers and families should be encouraged.

4.8.3 Money in "Pots" as a Planning Tool

Learning these skills earlier in life or as a young worker will increase FWB. There are implications for the way in which financial services products are delivered to make this form of planning more straightforward.

4.8.4 Ability to Adjust Non-essential Expenditure to Life Events

This is important for the family group and it leads to the conclusion that it is important to have some cushion. The financial cushion gives the family greater time to adjust to reduced income caused by a life event. A family will have greater FWB if it can adjust earlier to life events, and is assisted with recognising the need to respond.

5 Conclusions

We conceptualise our paper as advancing psychological theory of well-being by offering deeper insight into the factors underlying FWB, which is crucial for understanding consumer and employee behaviours. We offer a new approach to understanding and measuring FWB which is based on identifying the specific psychological processes as well as financial circumstances and behaviours in one's life that influence SWB. We identify the key components of FWB, which goes beyond current theory and measurements in terms of income and/or subjective satisfaction with one's finances (Diener et al. 1999; White and Dolan 2009). Our findings are analogous to measurements of SWB in healthcare where, in addition to the overall level of satisfaction with domains of life such as health and finances, aspects of health-related SWB involve more sensitive measures of various specific health states (see Bowling 1997). Thus it becomes possible to target the determinants of FWB specifically for the benefit of individuals and/or households.

There are critical practical implications from this research too. For example, a crisis hit the UK banking system after the collapse of Northern Rock in September 2007. The banking sector has since been exposed as a major contributor to the economic recession. In a number of areas, it has been criticised for failures to act in the interests of society. The common factor has been a desire for short-term profitability at the expense of risk control; plus, there was no real constraint on bank growth. The crisis has caused fundamental questions to be asked about the purpose of banks, how they should be regulated and the true measure of performance for a well-run bank. Banks are beginning to offer products that help consumers manage their money, but the impact of these is low at present. At the same time, many consumers are focusing more on getting value for money. This changing environment means that there could be an opportunity to raise expectations for the banking sector to offer products that are demonstrably in the interests of their customers. In particular, banks can measure FWB, and should implement the following four key recommendations in order to improve FWB of the groups subject to this research:

Encourage greater financial control by households in the UK: The conclusion of the research is that the FWB of households would be increased if banks developed products and internal processes that enabled customers to experience a greater sense of overall control of their money. Control is by far the most significant factor in driving FWB for the groups surveyed. Perception of control is a core psychological construct in the most prominent theories of behaviour. Control beliefs, such as 'self-efficacy', a core concept in the social cognitive theory (Bandura 2001) and 'perceived behavioural control', a central construct in the theory of planned behaviour (Ajzen 1991), relate to the perception of personal ability to perform actions and to achieve outcomes, and perceived ability to inflict change can be assessed pre and post simulation using documented scales. For example, improved knowledge of how the financial system works and an understanding of the roles that financial products play in the system may impact on such control beliefs.
Keep the unsecured debt-to-gross income ratio (DIR) as low as possible: For the family group, the DIR is a major factor in determining FWB. It is not a step change; but a gradual deterioration in FWB occurs as debt increases. The ratio is not as significant for young workers, but this does not mean that the young worker would not benefit from keeping it low. Banks can improve the FWB of customers by assisting them not to borrow more than they need, and by making it easier to repay debts.
Encourage young workers to think of their money in "pots" put aside for different things: The extent to which young workers are able to plan in relation to money will have an effect on their FWB. The FWB of young workers would be improved if financial products were offered in a way that helped them "to think of their money in pots", i.e. to divide expenditure into categories (rent, petrol, going-out, saving for holidays etc.).
Encourage families to adjust non-essential expenditure to life events: This is a significant factor in the FWB of families. The implication is that they need to understand the discretionary component of their expenditures. Furthermore, they need to understand the consequences of life-events such as having a child, moving house or a reduction in household income. It is likely that the earlier adjustments are made in the family budget to a life event, the better it will be for the FWB of the household. The banking industry could help families by providing products that assist in achieving this objective.

Banks have been allowed to encourage poor financial management and in so doing have taken advantage of customers who do not manage their money well. Loans are often granted too easily, unjustifiable penalty charges are paid primarily by those least good at money management, expensive payment protection insurance has been sold under cover of a loan product, and obsolete accounts are exploited to the disadvantage of sleepy savers.

In the corporate world, banks have been the equivalent of car manufacturers producing faster and faster cars without investing in improved brakes. Banks offer products that require more knowledge from customers, but they have not provided the tools for customers to make decisions. No wonder so many customers have spun off the financial road.

The control of overall finances is critical to achieving FWB for both families and young workers. Unfortunately, the multiplicity of financial products has made this difficult. Many people have different bank accounts for different purposes, multiple credit and store cards, savings accounts, personal/car loans, student loans and many other financial products.

Arguably, too many banking innovations of the last 10 years have benefited the bank rather than the FWB of the customer. In the last couple of years, however, there have been developments from some banks/credit card companies in the US and UK that should improve the FWB of customers. These include expense management, budgeting, saving and debt reduction tools. They are not yet widely available in the UK. Nevertheless, there must be some demand; otherwise major institutions would not have made the necessary investment. The technology involved is not new and the costs are not huge; indeed, they are well within the normal budget allocated for routine product enhancement.

The economics for the bank ought to be compelling in that customers who find these tools helpful are unlikely to want to switch bank. From a risk control perspective, customers who are able to better manage their money are also less risky. The specific products should be tested to discover how likely they are to be used (if available), and to find out which features have immediate appeal. The products should be designed to assist with control of expenditure, planned debt reduction and increased savings. These products could be offered separately, or as an integrated suite. The customer interface screens could vary according to the preferences of the customer.

The technology is available to enable all these tools to operate via current accounts, something that all participants used. They would need to be simple, but if they were, it is almost certain that a large number of households would use them. This would include a proportion of lower and middle-income households that really need help managing their finances. Banks can deliver 'healthy' products and processes such as these. The hope is that banks will emerge from the current debacle not only better managed, but also offering significantly better services to customers. In the new world, banks will demonstrably improve the FWB of their customers.

The regulatory implications of this research are also evident. Given the part-nationalisation of the banking sector in the UK and the poor performance of banks in delivering products/services that improve the FWB of customers, there could be a role for government. For instance, banks might be required to produce evidence that the products/services they offer are increasing FWB by using an FWB Index. This work could be extended to other population groups and the significant parameters included in a scoring mechanism. Alternatively, the regulator could require a survey of a financial institution's customers to confirm that features are a benefit. These could include measurement to show that population segments with motivation issues regarding saving or debt reduction are being assisted. After all, water companies must invest in improving the infrastructure, car companies must invest in safety and pharmaceutical companies must prove that the drugs they sell are in the public interest; *why should banks be able to hide behind compliance to sell intrinsically poor products?*

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Appendix 1: Demographic Tables (Total: 654, Young Workers: 334, Families: 320)

See Tables 6, 7, 8, 9, 10, 11, 12, and 13.

All cells used in the analysis contained a sufficient number of respondents to carry out statistical tests. The only quotas set for the sampling were to ensure at least 300

Table 6 Age groups

Age	18–24	25–29	30–34	35–39
Total	104	293	118	139
Young workers	104	230	0	0
Families	0	63	118	139

Table 7 Gross annual household income

Gross income	£15k–£25k	£25k–£35k	£35k–£45k	£45k–£60k
Total	123	194	133	204
Young workers	72	92	71	99
Families	51	102	62	105

Table 8 Ratio of unsecured debt to gross annual household income or debt/income ratio (DIR)

DIR	<5 %[a]	5–14 %	15–39 %	40–59 %	>60 %
Total	134	134	183	98	105
Young workers	46	59	98	61	57
Families	88	75	85	37	48

[a] Including respondents with no unsecured debt (34 in total)

Table 9 Gender

Gender	Female	Male
Total	377	277
Young workers	193	141
Families	184	136

Table 10 Marital status

Marital status	Single	Co-habiting/married	Separated/divorced/widowed
Total	127	522	5
Young workers	127	207	0
Families	0	315	5

Table 11 Children at home (age of child/children)

Age of child	<5	5–16	16<
Families	208	171	14

Some respondents have more than one child

Table 12 Number of children in household

No. of children	1	2	3	4 or more
Families	127	147	38	8

Table 13 Social grade

Social grade	A	B	C1	C2	D	E
Total	32	170	285	114	45	8
Young worker	8	94	174	34	19	5
Families	24	76	111	80	26	3

respondents in each of the young worker and family groups. In addition, a quota of 40 % male was set, with 42 % being achieved.

Appendix 2: Data Tables for the Factor Analysis and Regression Analysis

See Tables 14, 15, and 16.

Table 14 Factor loadings

Items	Component			
	Being in control (overall Finances)	Comfort with being in debt	External pressures affecting borrowing	Ability to influence situation
M2a.3 I feel I am on top of my monthly out goings	*0.788*	0.033	−0.069	0.000
M2a.4 I know the detail of my financial situation at all times of the month	*0.787*	−0.004	0.147	−0.034
M2a.1 I feel comfortable dealing with financial matters	*0.786*	0.177	−0.013	−0.115
M2a.2 I only spend within my means	*0.572*	−0.280	−0.192	0.141
M2b.8 Borrowing makes me feel uncomfortable	0.069	*−0.783*	0.122	0.215
M2a.6 I am comfortable with borrowing for something that I consider to be essential	0.174	*0.769*	0.065	0.247
M2b.11 I find it difficult to resist pressure to "keep up with the Joneses"	0.018	0.007	*0.778*	0.016
M2c.14 In order to keep in touch with friends, I spend money that I would rather not spend on going out	0.041	−0.208	*0.727*	−0.002
M2b.7 I always use credit for non-essential items	−0.071	0.274	*0.590*	−0.010
M2b.10 I think it is easy to get into debt because banks and shops make it too easy to get credit	−0.212	0.062	0.066	*0.874*
M2a.5 I adjust the amount of money I spend on non-essentials when my life changes	0.360	−0.068	−0.155	*0.556*
% of variance explained	25.2	14.1	12.0	*9.7*

Loadings for items included in the factor analysis are shown in italics

Table 15 Cronbach's Alpha

Factor	Cronbach's Alpha	N of items
Being in control (overall finances)	0.75	4
Comfort with being in debt	−0.86	2
External pressures affecting borrowing	0.52	3
Ability to influence situation	0.28	2

Table 16 Regression analysis

Model	Financial satisfaction—total base			Financial satisfaction—families			Financial satisfaction—young workers		
	Unstandardized coefficients		Collineariy statistic (tolerance)	Unstandardized coefficients		Collineariy statistic (tolerance)	Unstandardized coefficients		Collineariy statistic (tolerance)
	B	Sig.		B	Sig.		B	Sig.	
(Constant)	4.524	0.01		5.164	0.01		2.78	0.01	
Being in control (factor 1)	0.574	0.01	0.603	0.564	0.01	0.543	0.632	0.01	0.522
Comfort with being in debt (factor 2)	0.07	0.147	0.832	0.095	0.188	0.808	0.023	0.832	0.856
External pressures affecting borrowing (factor 3)	−0.055	0.235	0.868	−0.06	0.371	0.843	−0.091	0.418	0.905
M2a.5 I adjust the amount of money I spend on non-essentials when my life changes	−0.187	0.006	0.668	−0.213	0.04	0.679	−0.301	0.069	0.584
M2b.10 I think it is easy to get into debt because banks and shops make it too easy to get credit	−0.025	0.607	0.893	−0.128	0.079	0.912	0.018	0.878	0.777
Debt to Income	−1.481	0.01	0.891	−1.582	0.01	0.851	−0.865	0.113	0.889
M2c.15 I think it is better to live your life and enjoy it rather than worry about money	0.191	0.01	0.928	0.235	0.01	0.938	0.283	0.038	0.909
M2c.16 I think it's important to save up for things I/we want	−0.019	0.773	0.756	−0.142	0.149	0.712	0.112	0.448	0.728
M2c.18 I think of my money in terms of "pots" put aside for different things	0.11	0.018	0.861	0.134	0.066	0.817	0.244	0.025	0.811
Personal Income (Personal Income: standardized coefficient)	0.01 (0.052)	0.134	0.920	0.01 (0.062)	0.209	0.908	0.01 (0.174)	0.052	0.903
M2b.12 I find it difficult to resist buying things/paying for activities for my children				0.03	0.659	0.827			
N		654			320			334	
R^2		0.324			0.357			0.394	

Appendix 3: Relationship Between the Unsecured Debt-Income Ratio (DIR) and Answers in the Survey

Attitudinal Statement and DIR

This report identifies that the ration of unsecured debt to gross household income (DIR) is a significant factor for families in terms of achieving FWB. There were some examples of further evidence provided by statistically significant answers to the attitudinal questions.

The attitudinal statement that had a similar result from both the population groups was "when I think about the state of my finances I feel anxious". The mean score for the five answers (disagree strongly, disagree, neither/nor, agree, agree strongly) was used with a score of five representing the maximum level of agreement. At a 95 % confidence interval both groups show more anxiety about the state of their finances when the proportion of unsecured borrowing is greater. Those with relatively high levels of debt in the Families do not feel as uncomfortable about borrowing. This implies that the anxiety with the state of their finances is caused by the way in which money is being spent rather than over the debt itself. It may be possible to gather further evidence from analysis of the priority given to various types of expenditure. It is possible to see how debt would be building for the young workers as those with more debt are more likely to dip into savings and spend more money than they intend on going out with friends.

See Table 17.

Table 17 Attitudinal statements with statistically significant relationship with DIR

	Young workers	Families
"When I think about the state of my finances I feel anxious"		
DIR < 15 %	3.2*	3.22*
DIR > 15 %	3.5*	3.75*
"Borrowing makes me feel uncomfortable"		
DIR < 15 %	3.77	3.78*
DIR > 15 %	3.61	3.44*
"I dip into my savings when money is tight"		
DIR < 15 %	3.38*	3.55
DIR > 15 %	3.69*	3.55
"In order to keep in touch with friends, I spend money that I would rather not spend on going out"		
DIR < 15 %	2.91*	2.51
DIR > 15 %	3.28*	2.69

* Denotes statistically significant difference at 5 % significance level, or better, between low and high DIR

Actions to Improve Financial Well-Being and DIR

The survey presented statements and asked respondents either how important they were in helping achieve FWB or whether they would improve their FWB. FWB was defined for this question as having enough money left over for non-essential to 'live your life'. Twenty statements were presented to participants with the order being rotated. Six of the statements had statistically different answers according to the level of the DIR (see Table 17).

See Table 18.

Table 18 Financial statements with statistically significant relationship with DIR

Statement followed by mean score of agreement for unsecured debt to gross income ratio of above and below 15 %	Young workers	Families
"My level of income"		
DIR < 15 %	4.31	4.34
DIR > 15 %	4.43	4.27
"Reducing my regular outgoings"		
DIR < 15 %	3.79	3.84*
DIR > 15 %	3.96	4.15*
"Having the equivalent of 3 months' salary in savings to fall back on"		
DIR < 15 %	4.17	3.94*
DIR > 15 %	4.21	4.32*
"Paying off any loans in full"		
DIR < 15 %	3.70*	3.80*
DIR > 15 %	4.35*	4.38*
"Paying off the entire out-standing balance on credit cards/store cards"		
DIR < 15 %	3.62	3.52*
DIR > 15 %	3.76	4.16*
"Knowing my debts are reducing each month"		
DIR < 15 %	3.95	3.67*
DIR > 15 %	4.01	4.11*
"Having a plan for the next 6 months' income and expenditure"		
DIR < 15 %	3.30	3.25*
DIR > 15 %	3.38	3.59*

* Statistically significant difference at 95 % confidence interval between low and high DIR

For many questions for the families, the importance of the action is different according to the level of DIR. As the DIR increases, in order to improve FWB, families consider that it is more important to reduce regular outgoing, to have the equivalent of 3 months' salary to fall back on, to pay off any loans in full, to pay off outstanding balances on credit cards/store cards, to know debts are reducing each month, and to have a plan for the next 6 months' income and expenditure.

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