FINNISH AND AMERICAN HOUSEHOLD FINANCIAL BEHAVIOR DURING THE 2008 FINANCIAL CRISIS

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Raija Järvinen and Jukka Laitamäki

ABSTRACT

The paper discusses the impact of the 2008 financial crisis on family wealth and income in Finland and the United States from the behavioral finance perspective. The crises started in the U.S. already in 2007, but in Finland during 2009. The U.S. family wealth collapsed due to the U.S. housing markets which left many home owners with large loans exceeding the value of their homes. Finnish families saw their wealth increase partly because the Finnish housing remained stable. The mean U.S. family income declined dramatically, whereas in Finland family incomes have continued to increase. Indebtedness and savings ratios increased in both countries and families started to save more due to the economic uncertainties. However, changes in macroeconomic environment do not explain totally the changes in household behavior during the financial crises, but the key concepts of behavioral finance approach offer another perspective to analyze them.

Keywords: debt, financial crisis, financial behavior, household, income, saving, wealth

1. INTRODUCTION

The 2008 financial crises have produced some of the most significant economic shocks for the global economy. The effect of these crises was first thought to be confined to the U.S. financial sector. However, due to the importance of the U.S. economy for the world economy the effects spread to several national economies. The impact on global markets emerged in August 2007, when a number of European banks announced their heavy investments in the U.S. mortgage backed securities. Due to the deterioration in confidence, the decline in housing and equity prices, and rising unemployment, households around the world made rapid re-evaluation of their spending plans, cutting back in particular on discretionary spending. As a result private consumption fell sharply (Edey, 2009).

Jackson (2010) reports that International Monetary Fund (IMF) and the European Central Bank (ECB) claim that many of the factors leading to the financial crises in the USA created similar crises in Europe. These factors include low interest rates, credit expansion and rapid growth pushing up values of equities, commodities and real estates. Over time, the combination of higher commodity prices and rising housing costs pinched consumers' budgets and they began reducing their spending.

The purpose of the paper is to study household financial behavior in the U.S.A. and Finland before, during and after the financial crises and explain their behavior according to the behavioral finance approach.

Unlike traditional economics behavioral finance would be regarded as irrational. According to Chuah and Devlin (2011) traditional economics is based on the assumption that people act in a completely rational and instrumental, or self-interested, manner. People are assumed to take full account of all information available to them and to act according to this information and their preferences. In doing so, their goal is assumed to be maximisation of their utility. However, it is increasingly apparent that rational, "information-processing" models do not accurately explain actual or observed consumer

behaviour. An increasing body of evidence points towards persistent and consistent violations of outcomes expected according to a rational, or information processing, perspective (Thaler and Sunstein, 2008). These violations occur for various reasons, including the mental effort required to make informed decisions, faulty reasoning on the part of consumers and the complexity of the decision-making process (Chuah and Devlin, 2011).

This study follows household economies during 2001-2010 in the U.S.A., the leading economy in the world, and in Finland which has shown more stability than other European economies during the recent crises. The U.S. information is based on Federal Reserve Statistics and the Survey of Consumer Finances (SCF) panel data that was collected during 2001, 2004, 2007 and 2010. The Finnish information is based on statistics and studies provided by Statistics Finland, Bank of Finland and Federation of Finnish Financial Services**.** The longitudinal data across the time is inevitable in this type of research, because changes in consumption follow recession cycles.

The paper is organized as follows. First, the main concepts of the behavioral finance are described. Then the macroeconomic environment in both the U.S.A. and Finland are explained. This is important, because it affects inevitably households' decision making and assists to understand the circumstances where households are performing. Thereafter, the household statistics and expectations are presented with behavioral reasoning. The paper ends with comparison between the two countries and discussion connecting results to the conference themes, austerity, poverty and policy.

2. KEY CONCEPTS EXPLAINING HOUSEHOLD FINANCIAL BEHAVIOR

The main concepts of the behavioral finance approach are originating both the prospect theory and the cognitive theory. Kahneman and Tversky (1979) developed the prospect theory which proposed that under uncertainty consumers are more sensitive to a loss than to a gain of similar magnitude. A lost dollar has more value than a gained dollar for the consumer. The behavioral finance research has suggested e.g. following concepts that may explain irrational consumer behavior: loss aversion, over reaction, certainty effect and overconfidence (Benartzi and Thaler, 2002; Kleinubing et. al., 2005; Mintel, 2006). Cognitive theory addresses a consumer's thoughts as the determinate of his or her emotions and behaviors. Many cognitive theorists believe that without these thought processes, consumers could have no emotions and no behavior and would therefore not function (Engel et al., 1990; Miller, 1956; Solomon, 2004). In other words, thoughts always come before any feeling and before any action. Opposite to the economic theory, the cognitive theory suggests that some of these thoughts and the resulting behaviors are not always rational.

According to the prospect theory, the same consumers who are too risk-averse to seek gains may take unwarranted risks in order to avoid losses. This loss aversion manifests itself in the reluctance of investors to sell losing stocks in the hope that the stock will turn around and the loss will be avoided. Investors are more apt to sell stocks that have risen in value and to hold on to losers. Due to loss aversion they are apt to sell stocks that outperform the stocks they hold on to so that their investment performance suffers. Consumers, who are most attentive to the market and more knowledgeable, are interestingly the ones who are most likely to engage in irrational behaviour (Statman 1999). Consumers may also be overly cautious about risk in stock markets and keep money in low yielding “safe” savings accounts that don't keep up with inflation.

Consumers may over react to short-term performance, especially losses, even if their investment horizon is long term. Consumers tend to be too optimistic in rising markets and too pessimistic in declining markets. In the case of mutual funds, the tendency to “chase performance” leads investors to

switch to hot funds often when they are at their peak, only to be disappointed by the fund's subsequent lacklustre performance. (Benartzi and Thaler 2002)

Based on the prospect theory consumers would place a very high premium on guaranteed or certain outcomes. Due to this certainty effect, consumers may wind up keeping too much money in "safe" savings accounts or other guaranteed financial products that do not keep up with inflation (Kleinubing et.al., 2005). They may also feel too certain about their income earning capabilities and sign up for a too large home loan and end up in financial difficulties.

Even though consumers may not be "smart," they themselves hold an overly favourable view of their abilities, reflecting overconfidence. Overconfidence can give investors the illusion that they are savvy stock pickers. Research has found that overconfidence is associated with more frequent trading, which in turn is associated with poorer portfolio performance. It has also been shown that overconfident investors overreact to private and under react to public information (Daniel et. al. 1998). They value highly their own investment choice, and feel reluctant to switch to alternative investing opportunities (Dittrich et. al., 2005).

The familiarity bias is the tendency for consumers to like things that are familiar to them. This suggests that by exposing consumers to company names increases liking for them. Consumers are more likely to invest in companies that are well known, and therefore companies in the news tend to command higher prices because demand for them is greater. In certain situations consumers may trust a familiar banker too much and sign up for a too large loan given their income earning potential. (Laitamäki et al., 2008)

Due to anchoring, consumers and even investment professionals may cling to a fact, figure or valuation that may be irrelevant or incorrect. This initial number, however, exerts an unfounded impact on financial decision-making. Earnings estimates given by equity analysts often still reflect their initial estimate even after an earnings surprise. In other words they give too much weight to their original (incorrect) estimate and too little weight to actual company results. Consumers may take a too large variable interest rate loan based on the low introductory rate rather than the maximum rate that will become effective after a couple of years. (Laitamäki et al., 2008)

The appraisal of alternative options can also depend on the way the choice is presented, or "framed". How information is framed can have profound implications for consumer behaviour and, in particular, consumer choice. People have a preference for positive rather than negative frames, an effect which follows on from loss aversion. Although framing is often discussed with reference to positively versus negatively presented information, it applies to the presentation of information more generally, particularly where factually equivalent information can be presented in alternative formats. (Chuah and Devlin, 2011)

Mental accounts are the tendency for consumers to compartmentalize their money into different categories and accounts according to purpose or perceived risk. They treat money in these accounts differently, for instance, seeking conservative, safe investments for retirement accounts and more aggressive investments for other types of accounts. Mental accounts can be used to help consumers save and put away money. This tendency can also cause problems, as consumers are less likely to make decisions based on their overall wealth situation. They may consider house purchase a low risk investment and sign up for a too large loan given their income. (Laitamäki et al., 2008)

3. ECONOMIC ENVIRONMENT

3.1 The U.S. Economic Environment 2007 Through 2010

The main reason for the financial crises in 2007 was the U.S. sub-prime housing loan markets and the large increase in home construction and dwelling prices which started mid 2006 (Edey, 2009).

Families' finances are affected by their own decisions and the state of the broader economy. Between 2007–2010, the U.S. economy experienced its most substantial downturn since the Great Depression. Real gross domestic product (GDP) fell nearly 5.1 percent between the third quarter of 2007 and the second quarter of 2009 the official period of recession as determined by the National Bureau of Economic Research (Bricker et al., 2012; Shachmurove, 2011). During the same period, the unemployment rate rose from 5.0 percent to 9.5 percent, the highest level since 1983. Recovery from the so-called Great Recession has also been particularly slow; real GDP did not return to pre-recession levels until the third quarter of 2011. The unemployment rate continued to rise through the third quarter of 2009 and remained over 9.4 percent during 2010. The rate of inflation, as measured by the consumer price index for all urban consumers (CPI-U-RS), decreased somewhat over the period from an annual average of 2.8 percent in 2007 to 1.6 percent in 2010 (Bricker et al., 2012).

Financial markets moved drastically over the three-year period. Major stock market indexes fell nearly 50 percent between September 2007 and March 2009, but about one-half of the losses in indexes such as the Dow Jones industrial average, the Standard & Poor's 500, and the Wilshire 5000 had been recouped by September 2010 (Bricker et al., 2012). Interest rates on new consumer loans generally fell; for example, the interest rate on a new 30-year fixed-rate mortgage averaged 6.38 percent in September 2007, and the average rate was 4.35 percent three years later in September 2010. Yields fell dramatically on liquid deposits, time deposits, and bonds; for example, the rate on a three-month certificate of deposit (CD) fell from an average of 5.46 percent in September 2007 to 0.28 percent in September 2010 (Bricker et al., 2012).

Housing was of greater importance than financial assets for the wealth position of most families. The national purchase-only Loan Performance Home Price Index by First American Core Logic fell 22.4 percent between September 2007 and September 2010, when house prices were 27.5 percent below the peak achieved in April 2006. Between 2007 and 2008 existing single-family home sales declined by 16.7 percent while new single-family homes sales declined even more by 37.5 percent. The declines continued through 2011 in new single-home sales while existing single-family home sales saw an increase in 2009 by 5.6 percent, followed by a decline of 4.2 percent in 2010, and slight increase of 2.1 percent in 2011. The homeownership had steadily declined in the U.S. from its peak of close to 68.5 percent during first quarter of 2007 to around 66 percent during last quarter of 2011. (Bricker et al., 2012)

The Congress and the President responded to the economic situation with several legislative measures, some of which had an immediate effect on family finances, and some of which were intended to help prevent future crises. In order to boost family after-tax-incomes, the 2001 and 2003 income tax reductions originally scheduled to expire in 2010 were extended. In addition, employee payroll taxes earmarked for Social Security were reduced. The Asset Relief Program allowed government infusion of equity into stressed financial institutions. The Dodd–Frank Wall Street Reform and Consumer Protection Act, passed in July 2010, contained prohibitions on certain lending practices and created the Consumer Financial Protection Bureau (Bricker et al., 2012; Khademian, 2011). In addition, many other proposals have been made for changes in financial regulations since the crisis started (Tropeano, 2011).

3.2. The Finnish Economic Environment 2007 through 2010

Finland among other EU member states initially viewed the 2007 financial crisis as a purely an American phenomenon. That view changed as economic activity in the EU declined in late 2008 (Jackson, 2010). Pantzar and Kytö (2010) argue that one could have noticed the crises signals, and perhaps anticipated the financial turbulence just by reading the Financial Times during the spring of 2007 or by recognizing the consumer barometer's threat of unemployment already in summer 2008.

In Finland the downward trend started somewhat later than in the USA because GDP still grew 4.9 percent in 2007. However, it fell 0.2 percent in 2008 followed by an 8.8 percent decrease in 2009. The GDP grew again in 2010 by 3.3 percent. Unemployment rate was 6.9 percent in 2007, and it even improved slightly to 6.4 percent in 2008. But in 2009 the unemployment rate increased to 8.2 percent and another 0.2 percentage points in 2010. Indeed, the year 2009 was the worst for the Finnish economy, the country started to recover in 2010.

The inflation remained quite stable being 1.6 percent in 2007 and 1.7 percent in 2010. The only exception is year 2008, when the inflation was as high as 3.9 percent. In December 2007 new mortgage interest rate was close to five percent (4.94), and the highest peak was achieved in October 2008, when the rate reached 5.52 percent. In February 2009 the rate was first time below 3 percent and in 2010 around two percent (Bank of Finland, 2012a). Similarly the one month Euribor came down from 3.6 percent to 0.8 percent between 2007 and 2010 (Bank of Finland, 2012b). The Finnish monthly stock market index (OMX Helsinki) experienced a drastic decline in 2008 when it fell from 11627 in December 2007 to 5365 in December 2008. The index was at its lowest rate (4914) in March 2009, but recovered by the end of 2010 reaching 7516 (Bank of Finland 2012c). The economic uncertainties increased the fluctuations and instability of the index between 2008 and 2010.

Finnish housing index increased 5.5 percent in 2007, and 0.6 percent in 2008, but it fell slightly by 0.3 per cent in 2009. However, the inflation adjusted housing indexes showed 3.4 percent decrease already in 2008. The new boom started in 2010, when the index grew 12.2 points (Statistics Finland 2012a). The housing index is especially important in Finland where about 65 percent of households. own their primary residence.

Nearly 35 percent of Finnish households own some kind of secondary residence, which most often is a summer cottage by the lake without luxuries. The trend is either towards well-equipped secondary residences, so called country houses, or small renovated cottages. In addition, there are over one million forest owners in Finland, which means that every fifth Finnish citizen owns at least a couple of hectares forest. The Finnish tradition to own primary and secondary residences as well as forest has somewhat substituted investments in financial assets.

The Finnish government continued to follow its income tax reduction program until 2011. Exception was the Value Added Tax (VAT) increase starting in 2010. Regarding consumer protection Finland follows the European Union's consumer policy (European Commission, 2007 and 2012).

The recent financial crises have demonstrated how financial markets are highly interdependent with extensive links across national borders in the EU. This is forcing EU governments to work together to find mutually reinforcing and country binding solutions.

The European Commission has released European Framework for Action and Economic Recovery Plan (Jackson, 2010), and three new European level regulatory bodies have been established: the European Banking Authority, the European Securities and Markets Authority, and the European Insurance and Occupational Pensions Authority. In addition, the Basel III capital regulations have been revised as a part of the new EU level financial regulation (Tropeano, 2011). In May 2010 European finance ministers approved a 750 billion euro rescue package for ensuring financial stability and created the European Financial Stability Facility (EFSF) (Singala and Kumar, 2012). In spite of these actions, by

June 2009 grossly over-indebted countries were provided emergency assistance through IMF and EC. However, the EU governance process gives Finland and other EU countries some discretion on how to regulate and supervise financial markets within their borders.

4. CHANGES IN WEALTH, DEBT AND INCOME

4.1 Changes in Wealth

Declines in the values of financial assets were important factors in the U.S. financial crisis. However, the decreases in mean net worth appear to have been driven most strongly by broad collapse in house prices. A substantial part of these declines can be associated with decreases in the level of unrealized capital gains on families' assets. (Bricker et al., 2012)

TABLE 1. Changes in the mean U.S. family net worth between 2001 and 2010

	Mean (Thousands)				**Mean change: Percent of USD**			
	2001	**2004**	**2007**	**2010**	**2001**	**2004**	**2007**	**2010**
All families	$487.0	$517.1	$584.6	$498.8	-	+6.2%	+13.1%	-14.7%
	549.7e	379.0e	396.9e	376.4e	$=USD	e=euros		

Source: Survey of Consumer Finances 2010, The Federal Reserve Board

The mean Finnish family net worth is less than half of the mean of the U.S. households. The mean family net worth continued to increase in Finland after 2007 while the mean net worth was already decreasing in the USA. Finnish family wealth increased by 14 percent between 2004 and 2009 (Statistics Finland, 2011e) (Table 2).

TABLE 2. Changes in the Mean Finnish Family Net Worth Between 2004 and 2009[1]

	Mean (Thousands)		**Mean change: Percent of Euros**	
	2004	**2009**	**2004**	**2009**
All families	137.4e	156.7e	-	+14.0 %
	$187.5	$224.6	$=USD e=euros	

Source: Statistics Finland, 2011e

Especially in the U.S. households loss aversion, meaning that consumers generally appear to dislike losing something roughly twice as much as they like gaining it (Kahneman et al., 1991; Thaler and Sunstein, 2008) have been relevant when families have been losing part of their wealth. In other words, they have been more sensitive to losses compared to gains of similar magnitude (Chuah and Devlin, 2011), leading to the disposition effect, which refers to the tendency of investors to continue holding assets that have dropped in value and to sell assets that have increased in value (Kahneman et al., 1990). The most obvious application of the disposition effect in financial services relates to the tendency of individuals to continue to hold stock market investments for far too long in the hope that

[1] Statistics Finland provides wealth data only every five years

they will recover in value rather than cut losses, sell up and invest in something with greater potential (Chuah and Devlin, 2011). During the financial crisis disposition effect works also in housing markets: many families try to afford to keep their houses as long as they can and hope their value to recover. Also as a result of loss aversion, like Chuah and Devlin (2011) remind, many families probably have their investment portfolios under-diversified, and this is a concern especially in households where housing forms major part of their assets.

4.2. Changes in Financial Assets

In the U.S.A. the share of household financial assets in total assets fell 8.2 percentage points between 2001 and 2007. The relative shares of various financial assets also shifted. The decline in the percentage share of directly held stock was mostly offset by increases in the shares of transaction and retirement accounts. The share of financial assets held in retirement accounts has nearly doubled since 1989, and as of 2010, it stood at 38.1 percent of families' financial assets (Bricker et al., 2012).

TABLE 3. Value of Financial Assets of All U.S. Families, Distributed by Type of Asset, 2001-2010 (percent)

Type of financial asset	2001	2004	2007	2010
Transaction accounts	11.4	13.1	10.9	13.3
Certificates of deposit	3.1	3.7	4.0	3.9
Savings bonds	0.7	0.5	0.4	0.3
Bonds	4.5	5.3	4.1	4.4
Stocks	21.5	17.5	17.8	14.0
Pooled investment funds (excluding Money market funds)	12.1	14.6	15.8	15.0
Retirement accounts	29.0	32.4	35.1	38.1
Cash value life insurance	5.3	2.9	3.2	2.5
Other managed assets	10.5	7.9	6.5	6.2
Other	1.9	2.1	2.1	2.3
Total	100	100	100	100
Memo:				
Financial assets as a share of total assets	42.2	35.8	34.0	37.9

Source: Survey of Consumer Finances 2010, The Federal Reserve Board

In Finland households tend to keep their money in transaction accounts, certificates of deposits, stocks, non-traded shares and life insurance (Table 4). Between 2007 and 2010 certificates of deposits saw an increase from 9.9 percent to 15.8 percent which reflected the increasing conservatism of Finnish families. However, the shares of transaction accounts and stocks declined slightly (Statistics Finland, 2011e). In spite of cautious investment policies there are many Finnish households that suffered from the financial crisis and lost their investment capital partly or totally during the years of 2008 and 2009. These unfortunate cases resulted in a peak in arbitrations and complaints towards Finnish banks, but as soon as markets improved the number of cases stabilized to pre-crisis levels (www.fine.fi, 2012).

TABLE 4. Value of Financial Assets of Finnish Families Distributed by the Type of Asset 2001-2010

Type of financial asset	**2001**	**2004**	**2007**	**2010**
Cash	1.0	1.2	1.5	1.8
Transaction accounts	25.4	25.1	21.3	18.1
Certificates of deposit	8.0	6.4	9.9	15.8
Bonds	1.5	1.6	1.7	2.8
Stocks	14.2	11.8	13.4	13.2
Non-traded shares	20.8	23.2	19.7	19.8
Shares in investment funds	4.0	5.7	8.9	6.5
Cash value life insurance	20.1	21.4	20.9	19.6
Derivatives	0	0.1	0.1	0.0
Loans to others	0.3	0.4	0.1	0.0
Other	4.1	3.1	2.5	2.4
Total assets	100	100	100	100

Source: Statistics Finland, 2011e

Between June 2007 and December 2008 the number of monthly net-transactions in Finnish investment funds declined**.** This may have happened as a result of over reaction. Since that time the monthly net-transactions have remained positive with a few exceptions such as May 2010. On the other hand, the number of people owning stock in Finland increased around 10 percent between March 2007 and September 2010 (Federation of Finnish Financial Services, 2011). Keloharju et al. (2012) study show that in Finland stock and fund owners are two separate groups. Only five percent of the population own both stocks and mutual funds. The size of the portfolios was only a couple of thousand euros, and the average stock portfolio contained three stocks, and the average fund portfolio two funds which refers to some sort of familiarity bias. On its part, certainty effect may explain the popularity of transaction accounts and the fact that the U.S. retirements accounts have gained more favour among households indicates strong mental accounting in connection with retirement plans.

The household financial portfolio may be a result of framing and anchoring. Chuah and Devlin (2011) give an example of a fee or rate of return expressed as a percentage that may provoke a significantly different behavioural response to the same factual information expressed in absolute monetary terms. The anchoring effect refers to the appraisal of options affected by an original starting value (or anchor), or the ultimate decision (Chuah and Devlin, 2011, Luth, 2010)..

The crucial lesson from the framing literature is that consumer choice is highly dependent on how information is presented, or framed, and that factually equivalent information can provoke a very different response when framed in a different manner. Another area in which framing has a crucial role to play in financial services is in relation to the presentation of past performance statistics. (Chuah and Devlin, 2011) Especially in bond and stock markets past performance is no guide to likely future returns and the weight of evidence shows little relationship between past and prospective returns (Fama, 1970; Brown and Goetzman, 1995; Carhart, 1997; Rhodes, 2000). However, as such data is readily available, it is not surprising that many consumers rely on such data when making fund choices (Mussweiler and Schneller, 2003; Mitchell and Utkus, 2004). Research has shown that the timescale used in past performance presentation can influence investment decisions (Thaler and Benartzi, 1999), as can whether identical data on past performance is presented in a line graph or as a bar chart representing annual yields (Diacon and Hasseldine, 2007).

4.3. Changes in Total Debt and Savings

In the U.S.A. between 2007 and 2010 the share of families with any type of debt decreased 2.1 percentage points to 74.9 percent, reversing an increasing trend that had taken place since 2001. The majority of the family debt was used for the purchase of a primary residence (Table 5).

TABLE 5. Amount of Debt of U.S. Families, Distributed by Type of Debt, 2001-2010 Percent

Type of debt	2001	2004	2007	2010
Secured by residential property				
Primary residence	75.2	75.2	74.7	74.1
Other	6.2	8.5	10.1	9.8
Lines of credit not secured by residential property	0.5	0.7	0.4	1.0
Installment loans	12.3	11.0	10.2	11.1
Credit card balances	3.4	3.0	3.5	2.9
Other	2.3	1.6	1.1	1.1

Source: Survey of Consumer Finances 2010, The Federal Reserve Board

The number of Finnish families with residential property related debt has increased from 23 percent in 2001 to 28 percent in 2010 (Table 6). Consumer credit has stayed around 30 percent and the share of student loans have declined. In 2010 the total amount of Finnish household debt was divided between primary residence loans (73.6 %), consumer credit card loans (12.1 %), and other loans (14.3 %).

TABLE 6: Percentage of Finnish Families Having Certain Types of Loans

Type of dept	2001	2004	2007	2010
Secured by residential property	23	28	31	28
Consumer credit	30	34	32	30
Student and other loans	11	6	6	5

Source: Federation of Finnish Financial Services, 2011

The decreasing loan amounts during the financial crises may be a sign of mental accounting and certainty effect. The loan balance goes down step by step if households mentally budget the installments each month and do not drew new loan. The certainty effect 'makes' households pay back their loans even though the interest rates are low and thus, the loan is affordable.

The indebtedness and savings ratios at the country level show that in the U.S.A. the debt as a percentage of family income increased from 112.0 index to 116.4 index in 2010 (Table 7). The U.S. personal savings rate increased to 5.1 when U.S. consumers started to save more for rainy days (Table 9).

TABLE 7. Indebtedness and Savings Ratios of the U.S. Families 2001-2010

	2001	2004	2007	2010
Debt as a percentage of family income	112.0	115.0	114.8	116.4
Savings ratio	+2.7	+3.6	+2.4	+5.1

Source: Survey of Consumer Finances 2010, The Federal Reserve Board

In Finland the household indebtedness ratio nearly doubled between 2001 and 2010 (Table 8). During the same time period the savings ratio in Finland varied from slightly positive to slightly negative. As a result of increasing number of loans, more Finnish families face problems paying back their mortgages and credit card loans. Along with the crisis Finns started to save more which may be a sign of preparing for the uncertain future in economic sense.

TABLE 8: Savings and Indebtedness Ratios in Finland 2001-2010

	2001	2004	2007	2010
Debt as a percentage of family income	66.8	79.1	108.0	119.0
Savings ratio	-1.2	+2.2	-1.1	+4.1

Source: Federation of Finnish Financial Services, 2011 and 2012; Statistics Finland, 2011b and 2011d

The U.S.A. and Finland are not alone with their increasing indebtedness ratios. Same period of time consumer indebtedness reached record levels in nearly all Western societies (Hoelzl et al., 2011).

The percentage of U.S. families that saved decreased between 2001 and 2004 from 59.2 percent to 56.1 percent. There was a slight increase to 56.4 percent in 2007; however the Great Recession reduced the percentage of families saving down to 52.0 percent in 2010 (Bricker et al., 2012).

TABLE 9. Reasons U.S. respondents gave as most important for their families' saving, distributed by type of reason, 2001-2010 surveys (percent).

Type of reason	2001	2004	2007	2010
Education	10.9	11.6	8.4	8.2
For the family	5.1	4.7	5.5	5.7
Buying own home	4.2	5.0	4.2	3.2
Purchases	9.5	7.7	10.0	11.5
Retirement	32.1	34.7	34.0	30.1
Liquidity	31.2	30.0	32.0	35.2
Investments	1.0	1.5	1.6	1.2
No particular reason	1.1	0.7	1.1	1.4
When asked for a reason, reported do not save	4.9	4.0	3.3	3.5
Total	100	100	100	100

Source: Survey of Consumer Finances 2010, The Federal Reserve Board

The U.S. family motivation to save changed between 2001 and 2010 (Table 9). In 2001 retirement was the most important category, followed by liquidity. In 2010, liquidity was the most important reason to save. Saving for education and buying own home also declined. Finally, the percentage of non-saving families also declined from 4.9 percent in 2001 to 3.6 percent in 2010.

On their part Finnish households save mainly for rainy days followed by saving for investments followed by the primary residence and retirement (Table 10). Finland has a mandatory pension system that all of work force must participate. By 2045 the average pension level will decrease to 45 percent of the earned income due to the 2005 pension reform (Risku et al., 2011). Therefore, it will be important for Finns too to have extra savings for retirement in the future. Finnish pension reform came into effect January 2005. Since then the actual retirement age has increased steadily and pensions based on unemployment have been withdrawn. The average retirement age in Finland was 60.5 years in 2011, the increase from the reform year 2005 was 1.5 years (www.etk.fi, 2012). According to OECD Finland's pension assets totaled about 150 billion euros, or 75 percent of GDP, in 2012 (The Wall Street Journal, 2012).

TABLE 10. Reasons for Savings and Investments in Finland 2009-2010

	2009	**2010**
For rainy days	54	56
Investments	23	28
Retirement	19	24
Primary residence	15	17
Inheritance	6	10
Vacation	4	3
Home renovation	3	2
Education	2	1

Source: Federation of Finnish Financial Services, 2011

Tables 9 and 10 are good examples of mental accounting. Mental accounting occurs when sums of money are treated and valued differently depending on where they came from and/or where they are kept (Thaler, 1985). Money that is allocated to a specific purposes not easily interchangeable with other purposes (Luth, 2010). When people have separate mental accounts for different categories of spending they are reluctant to transfer spending from one account to another (Thaler, 1999). Thus, mental accounting violates the standard economic assumption that money is "fungible", meaning that all money is treated equally regardless of its source or destination and does not come with labels on (Chuah and Devlin, 2011). The fact that people tend to engage in mental accounting can have both positive and negative consequences. Many households have different accounts (in many cases literally but sometimes metaphorically) for everyday expenditure, saving for holidays, saving to fund education of children and so on. In one sense, this may help individuals and families to budget, as they can ensure that they do not over-commit in terms of expenditure in any one area and can control overall expenditure more effectively as a result. However, there are also potentially negative consequences. (Chuah and Devlin, 2011) It is not uncommon to have large outstanding balances on store and credit cards that are carried over month by month and sufficient funds to settle the balances in one or more savings accounts simultaneously (Gross and Soules, 2002).

4.4. Changes in Income

Table 11 shows that between 2001 and 2010 the median household income (in 2010 dollars) declined by 6.3 percent in the U.S.A. Between 2001 and 2004 the median household income declined only slightly, however due to the Great Recession the decline increased to negative 7.7 percent. Individual level median income followed the same pattern; however the decline between 2007 and 2010 was negative 9.4 percent because the average household size increased from 2.59 persons in 2007 to 2.63 persons in 2010. This decline in median income was widespread across demographic groups, with only a few groups experiencing stable or rising incomes such as retirees and nonworking families (Bricker et al., 2012). Between 2001 and 2010 also the mean household income declined accordingly.

The main reasons for the decline are globalization and automation which move jobs to low-wage countries and replaces human labor with new technologies respectively (The New York Times, October 24, 2012). Thus, this decline is not due to higher taxation as federal taxes equaled to 15.4 percent of GDP in 2011, down from 20.6 percent in 2000. The declining middle class income is partly attributable to rising healthcare costs, less powerful labor unions, and falling tax rates for the affluent at the expense of the middle class. The income gap has widened between non-college and college educated whose unemployment rate is about half of the nation at 4.1 percent. Interestingly the studies suggest that illegal immigration has not lowered the median income, neither has the growth of the minimum wage increased it (The New York Times, 24/10/2012).

TABLE 11. Changes in Median and Mean U.S. Family Income Between 2001 and 2010

	Median (Thousands)				**Median change: Percent of USD**			
	2001	**2004**	**2007**	**2010**	**2001**	**2004**	**2007**	**2010**
All families	$48.9	$49.8	$49.6	$45.8	-	+1.8%	-0.04%	-7.7%
	55.2e	36.5e	33.7e	34.6e				
Per person*	$18.9	$19.2	$19.2	$17.4	-	+1.6%	+/-0.0%	-9.4%
	21.3e	14.1e	13.0e	13.1e	$=USD		e=euros	

	Mean (Thousands)				**Mean change: Percent of USD**			
	2001	**2004**	**2007**	**2010**	**2001**	**2004**	**2007**	**2010**
All families	$83.3	$81.4	$88.3	$78.5	-	-2.3%	+8.5%	-11.1%
	94.0e	59.7e	60.0e	59.2e				
Per person*	$32.1	$31.4	$34.1	$29.8	-	-2.2%	+8.6%	-12.6%
	36.2e	23.0e	23.2e	22.5e	$=USD		e=euros	

*) based on average U.S. household size of 2.59 in 2001-2007 and 2.63 in 2010

Source: Survey of Consumer Finances 2010, The Federal Reserve Board

In Finland the mean and median disposable incomes have steadily increased between 2001 and 2010 (Table 12). The total increase between 2001 and 2010 was 21.0 percent in the median income, and 22.2 percent in the mean income. During the same time the average family size has slowly decreased, which has increased per person income even more. The reasons for net income increases are wage increases and tax cuts (Raijas and Kangassalo, 2010). Since the recession the income gap has widened in Finland due to the increase in low paying part-time and temporarily jobs.

TABLE 12: Changes in Median and Mean Finnish Family Income between 2001 and 2010

	Median (Thousands)				Median change: Percent of Euros			
	2001	**2004**	**2007**	**2010**	**2001**	**2004**	**2007**	**2010**
All families	27.6e	29.9e	31.6e	33.4e	-	+8.3	+5.7	+5.7
	$24.5	$40.8	$46.5	$44.3				
Per person*	12.8e	14.0e	15.0e	16.1e	-	+9.4	+7.1	+7.3
	$11.3	$19.1	$22.1	$21.3	$=USD		e=euros	

	Mean (Thousands)				Mean change: Percent of Euros			
	2001	**2004**	**2007**	**2010**	**2001**	**2004**	**2007**	**2010**
All families	32.8e	36.4e	38.7e	40.1e	-	+11.0	+6.3	+3.6
	$29.1	$49.7	$57.0	$53.1				
Per person*	15.3e	17.0e	18.4e	19.3e	-	+11.1	+8.2	+4.9
	$14.0	$23.2	$27.1	$25.6	$=USD		e=euros	

*Based on average household size in Finland; 2001=2.15; 2004=2.14; 2007=2.10; 2010=2.08

Source: Statistics Finland 2011c, 2012b and 2012c

Consumers tend to be optimistic and overconfident in assessing their income. This can be compared to the likelihood of an outcome that is said to rely primarily on evidence which is most easily available to them and/or evidence that has particular salience. As such, they usually overestimate the likelihood of outcomes that are particularly memorable, highly emotional or have happened recently (Kahneman, 2002). Extra bonuses are the kind of income that are memorized with pleasure. People have a natural tendency to be overconfident, e.g. extra bonuses may become expected every year. People's confidence systematically exceeds the accuracy of their choices (Chuah and Devlin, 2011). This is to say that especially future income is often overestimated and regarding to Finland the annual rise in salary is taking granted. This means that it is budgeted beforehand and if the rise is lower than budgeted households face financial problems.

5. FUTURE EXPECTATIONS

5.1. Future Expectations in the United States

Longer-term economic consequences of the financial crises depend, in part, on the extent to which the downturn and financial crises led to changes in families' expectations and behavior. The University of Michigan Index of Consumer Sentiment (ICS) fell from it's peak of close to 100 during the first quarter of 2007 to below 60 by the second quarter of 2009. Since then the ICS has remained between 60 and 80 and dipping below 60 once in July 2011.

The Survey of Consumer Finances (SCF) data from 2007 and 2009 suggested a shift toward caution: most families – especially those whose position in the wealth distribution improved – reported a desire for less risk and for higher reserve savings. Further, in most cases, heads of households that were working full-time planned on extending their working lives (Bricker et al., 2012).

The SCF panel asked how much savings families needed for emergencies and other contingencies – a measure of desired savings for precautionary purposes (Kennickell and Lusardi, 2004). Families' desired level of precautionary savings tends to increase over wealth groups (Bucks, et.

al., 2011). Most families in each of the relative wealth change categories reported greater desired precautionary savings in 2009 than they had in 2007, as might be expected if families generally believed they were exposed to a higher level of risk than they were previously. Nonetheless, a substantial minority of families reported either no change or a decrease in their precautionary savings in 2009. An analysis of families' reported willingness to take financial risk in investing and saving suggests that the recession and other economic developments may have led families to become more cautious. Working families that experienced negative wealth shocks from 2007 to 2009 might be expected to plan to work longer to recoup savings for retirement, and others might plan to work longer to hedge against future uncertainties (Bricker et al., 2012).

Survey of Consumer Finances (SCF) respondents in 2007 and 2009 were asked about their expectations for the state of the economy over the next five years relative to the last five years – specifically, if they expected the economy would be worse, better, or about the same. Across the wealth-change groups, there was greater optimism for all groups in 2009 regarding the five-year economic outlook (Bricker et al., 2012). In 2009 the respondents were also asked whether they thought the economy next year would be "better than now." The outlook over the year following the 2009 interview was less optimistic, and it was similar to the five-year outlook from 2007. The most common concern among families' future financial challenges was maintaining income or employment. Portfolio management was also a key challenge for the groups with the largest positive or negative changes in their relative wealth position (Bricker et al., 2012).

5.2. Future Expectations in Finland

Statistics Finland conducts the consumer survey every month which includes consumers' future expectations for 12 months ahead. The overall Consumer Confidence Indicator (CCI) measures consumers' assessments of their own economy, Finland's economy, unemployment rate and their own saving possibilities during the next 12 months. At the end of 2009 and 2010 the CCI was positive 14 but during 2011 consumer pessimism increased again, and the CCI declined close to zero and remained at the low level during the first half of 2012 (Statistics Finland, 2009; 2010; 2011a). This suggests that households first seemed to recover from the year 2008 and their optimism increased to previous levels, but then their confidence collapsed again during 2011.

Financial crisis have affected Finnish households and their attitudes towards their own household economy. First, it declined during 2009 close to zero. Since 2010 the confidence increased to positive 10 and remained there throughout 2011 (Statistics Finland, 2008; 2009; 2010; 2011a; 2012d). However, the optimism has grown as soon as there has been positive news regarding the economy in Finland and in the other European Union countries. However, Finnish consumers' belief on their future household economy has remained strong. The percentage of consumers that expect their own economy to improve during the next 12 months began to increase in 2009. During 2011 the belief of one's own economy started to decrease again. However, the share of consumers expecting their own economy to turn worse has remained at low level. (Statistics Finland, 2009; 2010; 2011a) It can be concluded that in spite of serious threats in the economies of Greece, Portugal, Italy, Ireland and Spain, Finnish households have somehow managed to keep their positive attitude regarding their own future.

Households' intentions to take loans have been stable; the amount of families with loan plans varied between 11 and 15.5 per cent. Car purchases were being planned between 14 and 18 percent of families. Primary residence purchases were planning around seven percent except in 2010, when nearly ten percent of households planned to purchase a new home. The consumer perception index (of 100) regarding the appropriate time for taking a loan and the index of confidence for saving fluctuated between 200 and 2010.

In 2009 Finnish households were hoping to increase consumption and luxury product purchases less than previous years (Sarpila and Haanpää, 2010). According to the study of Federation of Finnish Financial Services (2012), Finnish households prepared for future financial crises by saving more (60 percent of respondents) and by buying more insurance (10 percent of respondents).

Raijas and Kangassalo (2010) have studied consumer confidence indicator's links to macro economic cycles between mid-1990 and 2010. Their study shows that Finnish households are capable of estimating and anticipating future economic development. In addition, national economic policies have influenced consumer sentiments which are later seen in consumer behavior. For example changes in interest rates seem to affect consumers without delay.

Unfavorable economic trends influence household behavior towards financial risks. Table 13 illustrates the main criteria for selecting savings and investments based on a survey by the Federation of Finnish Financial Services (2011), and it shows that in this respect there are only minor changes between 2007 and 2010. Safety and low risk continue to be the most important investment criteria, but even their importance has lowered slightly due to the financial crisis. Interestingly, the importance of return has decreased between 2007 and 2010. Obviously, one reason for this is the exceptionally low Euribor rate and the stock market index (OMX Helsinki) which has stayed below the prerecession level. Therefore, it has been difficult to earn proper return for financial investments.

TABLE 13. The Main Criteria* for Selecting Savings and Investments in Finland 2007- 2010

	2007	**2008**	**2009**	**2010**
Safety	74	76	72	72
Low risk	-	62	60	60
Return	51	51	44	44
Ethical and responsible	-	-	-	30
Ecological	-	-	-	26
Preparation for retirement	28	28	29	28

Source: Federation of Finnish Financial Services, 2011. n=2394. Respondents who answered " a lot" versus "somewhat"; "not at all"; or "don't know" to a question "How much do following criteria influence your selection of savings and investments?"

6. COMPARING U.S. AND FINNISH HOUSEHOLDS FINANCIAL BEHAVIOR

This study revealed several interesting issues in Finnish and American households regarding the impact of financial crises on household economy and future expectations. The crisis started earlier in the U.S.A. which saw major declines between third quarter of 2007 and the second quarter of 2009 whereas in Finland the main impact was felt during 2009. In addition to time span there are some differences in the household financial behavior which are explained below.

The first difference was the limited impact of financial crisis on family wealth. Finnish family wealth increased from 2004 to 2009 by 14 percent when U.S. families saw their wealth decline by 15 percent between 2007 and 2010. In spite of the above, in Finland the average household wealth remained still less than half of the average U.S. household wealth. Finnish housing indexes did not indicate U.S. type large decreases, but instead the increase was followed after small decline. U.S. unemployment spells are also associated with wealth declines, whether because of the necessity of dissaving or because cumulated late payments might have caused the loss of an asset, such as a home,

through foreclosure (Bricker et al., 2012). Although continued saving might also account for some marginal differences, it appears that the major shifts were driven by revaluation of assets. As expected, changes in the values of principal residences and of stock and businesses equity appear to have played a substantial part in explaining the observed changes in wealth. Shifts in leverage that took place over the period are largely explained by the general decline in the value of assets (Bricker et al., 2012).

In Finland the non-financial assets have kept their value quite well, and this trend has continued even after 2009. About 65 percent of the Finnish households own their residence, and in most cases it is their main source of wealth. Finland did not experience a U.S. type home mortgage crisis which explains why Finnish family wealth did not decline because house prices were holding. The other interesting aspect of Finnish society is the 'summer cottage culture' meaning that Finnish consumers own over 500 000 summer cottages around the country. The third important non-financial asset is the ownerships of forests.

The second main difference results from the household financial investments. The U.S. households moved their assets more to retirement accounts, and pooled investments funds instead of stocks, whereas Finnish families relied more on transaction accounts, non-traded shares and cash-value life insurance. Knupfer (2011) suggests that in many countries the financial crises have led to consumers' unwillingness to invest in private financial instruments. The main reason is lack of trust, for example in the USA only 15 percent of consumers trust in stock markets. Trust is considered to be an important factor for financial markets to function properly. During the economic recession consumer trust on financial markets has been tested regularly, and it seems that trust has not yet recovered completely. On the other hand, Pihlanto (2012) argues that the distrust and greed took over the financial markets and resulted in the financial and economic crises. In addition, consumers are not often able to accurately understand and use financial products (Hoelzl et al., 2011).

Gritten (2011) claims that consumers have had their fingers burnt in the economic meltdown. Many thought they were making sound investment decisions in property, savings and investments, pensions etc., only to discover that the value of their wealth had been, at best, inflated, and, at worst, false all along. Many people feel let down by a system and by institutions that had promised, and often claimed to guarantee, to protect them and their assets. (Gritten, 2011) However, this study suggests that safety and low risk are most important criteria in household investments in Finland. Knupfer (2011) and Karila (2012) explain this with an argument that Finnish consumers are unwilling to take financial risks due to their political and cultural ideologies.

The third main difference was the impact of financial crises on family incomes. Between 2007 and 2010 the U.S. families saw their median and mean incomes decline by 7.7 percent and 11.1 percent respectively. Between 2007 and 2010 the opposite was true for the Finnish families which saw their median and mean incomes to increase by 5.7 percent and 3.6 percent respectively despite of high unemployment rate. The reasons for the U.S. decline include globalization and automation which have moved jobs to low-wage countries. Similar forces have also influenced in Finland but in the U.S.A. the decline is bigger due to increasing healthcare costs, less powerful unions, and falling tax rates for affluent at the expense of the middle class.

Kamakura and Du (2012) suggest that a recession can influence consumers in two ways. First, it can reduce their disposable income, and second consumers tend to save more or pay down their debt more. The above concludes that the suggestion of decreasing income holds in the case of the U.S. families, but not in Finland. However, the savings ratios between 2007 and 2010 increased in both countries, but the debt ratios functioned vice versa. Namely, during the same time period debt as a percentage of family income increased in both countries, but slightly less in the U.S.A. than in Finland. Chiriacescu et al. (2012) offer reasonable solution when they argue that the degree of indebtedness

impacts on defaults on bank loans together with unemployment, exchange rates, industrial production and interest rates. In the same period of time mortgage and deposit interest rates reached exceptionally low levels, and therefore, it was worth to take more debt. Thus, the low interest rates explain the increasing debt ratios in both countries.

Household saving and borrowing habits influence their other economic behavior. Loibl et al. (2011) argue that saving habits are commonly related to highly conscious and deliberate financial decisions. For most people these saving habits are formed over a long period of time, whereas loan habits are not self-evident. Consumers know the size of installments, but the majority of them seem to be unaware of the interest rates they pay (Berthoud and Kempson, 1992). Otherwise, the household behavior is dependent on family wealth, and mental budgeting is more common with less wealthy families (Antonides et al., 2011).

Edey (2009) indicated that increase in family savings may act in as a brake on reviving the economy in the short run. According to the Survey of Consumer Finances, a large proportion of U.S. families in all wealth groups and across the range of changes in wealth, expressed the need for greater precautionary savings. In general, compared with families with relative losses, the families with relative gains appeared more pessimistic and cautious before the crisis, and in the 2009 survey they remained cautious even though their wealth had increased. Overall, it appeared that families may be relatively reluctant to spend more when asset prices rise and may more readily reduce spending when asset prices fall (Bricker et al., 2012).

Yet financial markets have caused problems also in Finland and many households have experienced losses. Especially the fall of Nokia's stock has impacted strongly Finnish financial markets in both individual and national level, and Nokia's downturn has affected its Finnish sub-contractors. Problems in Finnish financial markets are partly the consequence of turbulent European economies. Finns are quite conservative when it comes to taking debt and there is a long tradition to pay back loans. Finns are proud that during the Depression, Finland was the only European country to honor fully debts incurred to the U.S. during and after World War I (The Wall Street Journal 2012). It seems that also Finns still remember the relatively brief but deep recession after the 1990's national banking crisis.

Especially Finnish families seem to follow with their future expectations the path presented by Pantzar and Kytö (2010): At the beginning of a recession they postpone household investments like cars and boats and prefer cheaper brands. At the later part of the recession they are compelled to change their life style including cheaper housing, less travelling and leisure activities. However, majority of Finnish consumers have been able to keep their living standards during the recession. In the U.S.A. families have become more cautious because of their concern of maintaining their income or employment. The study shows that usually during the crises families move from spending to saving because of their concern of unemployment and uncertainty. In some cases families may over react, e.g. by cutting off their spending even though they maintain their income level. On the other hand, some of the families may remain overconfident. This is to say that they do not believe the macro economic indicators, but they overestimate their future expectations.

7. DISCUSSION

Recovery from the financial crisis has been slow and complicated. In 2011 there were more than 24 million Americans out of work because they could not find full time work. About four million families had lost their homes to foreclosure, and millions more had slipped into the foreclosure process or were seriously behind on their mortgage payments. Nearly $9 trillion in household wealth had

vanished, and the country suffered from serious debt problems at the household and national level. (Khademian, 2011)

Singala and Kumar (2012) summarize Europe's core problems as the lack of economic growth coupled with high wages, large subsidies, complex regulations and high taxes. Other concerns include an aging population, increasing unemployment and growing globalization. Finland suffers from the same problems but in a somewhat smaller scale. The ECB provided large quantities of reserves through routine short and long term open market operations. Various governments, through their central banks, injected funds directly into banks and other financial firms (Jackson, 2010). In spite of all these actions to recover European economies, at the beginning of 2012 S&P downgraded the long-term government debt of nine European countries including France, Italy and Spain (Singala and Kumar, 2012).

The above described, still ongoing problems both in the U.S.A. and Europe have had serious consequences in many families that have lost their job, residence or investments. Many of them have to apply government support in order to survive their everyday life. Finland has survived better than most European countries, but even there, the number of unemployed applicants of income support increased clearly because of the financial crisis. One lesson is forwarded to financial institutions concerning savings and investment products in particular, that they should never forget that they are, after all, playing with consumer's money (Gritten, 2011).

It can be concluded like Gritten (2011) that a paradigm shift in consumer confidence has taken place on a global scale. The worst recession on record has forced everyone, whether rich or poor, young or old, to evaluate their personal and household finances, and to think about the implications for future generations to come. The study of Kamakura and Du (2012) suggests that there is a link between household economy and macro-level economic conditions. This study suggests that the household financial decisions are influenced by broader social context and macro-level economic conditions. It confirms the link between macro-level economy and household economy. It also proves that the saving rates seem to be higher during recessions than during economic booms. However, consumers financial behavior is strongly influenced by their own economic reality and their future expectations. After all consumers seek information about macro economic climate but suffer from information biases. Therefore, their financial assessments and decisions are formed by a mix of limited information, experience, feelings and ideas (Raijas and Kangassalo 2010). As a consequence, the policymakers should pay attention to the above mentioned paradigm shift when they plan actions to recover from the crises and the post-crises era.

The crises have underscored the growing interdependence between financial markets and the U.S and European economies (Jackson, 2010). Jackson (2010) suggests that due to the financial interdependence between the USA and the EU they share common concern over the global impact of the financial crisis and the economic downturn. This interdependence is also a serious matter across the national borders in the EU. Therefore, the policymakers all over the world should co-operate in solving the current financial crises.

Finally, the concepts of behavioral finance offer reasons behind the statistics of the U.S. and Finnish households. In short, constructs like loss aversion, over confidence, over reaction, certainty effect, familiarity bias, disposition effect, framing, anchoring and mental accounting offer valuable explanations why households behave like they do.

The study has some limitations due to the availability of directly comparable data because Finland follows the Eurostat system while the USA has its own statistical standards. The future studies could address this data issue as well as compare other European economies to the U.S.A. and Finland. Furthermore, the longitudinal follow-up studies of post crises period is recommended.

REFERENCES

Antonides, G., de Groot, I. M. and van Raaij, W. F. 2011. Mental Budgeting and The Management of Household Finance. *Journal of Economic Psychology* 32: 546-555.

Bank of Finland. 2012a. Statistics/Interest Rates. www.bof.fi 10.10.2012.

Bank of Finland. 2012b. Statistics/MFI Balance Sheets (loans and deposits) and Interest Rates. www.bof.fi 10.10.2012.

Bank of Finland. 2012c. Statistics/Stock Market Indexes. www.bof.fi 10.10.2012.

Benartzi, S. and Thaler, R. H. 2002. How Much is Investor Autonomy Worth? *Journal of Finance* 57: 1593-1616

Berthoud, R. and Kempson, E. 1992. *Credit and Debt: The PSI Report*. Policy Studies Institute.

Brown, S. and Goetzman, W. 1995. Performance persistence. *Journal of Finance* 50: 679-98.

Bricker, J., Kennickell, A., Moore K., and Sabelhaus, J. 2012. Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances. *Federal Reserve Bulletin* 98, no 2. Board of Governors of the Federal Reserve, June.

Bucks, B., Kennickell, A., Mach T., Moore K. 2011. Surveying the Aftermath of the Storm: Changes in Family Finances from 2007 to 2009. *Federal Reserve Bulletin* 95, no 2. Board of Governors of the Federal Reserve, March.

Carhart, M. 1997, On persistence in mutual fund performance. *Journal of Finance*. 52: 57-82.

Chiriacescu, B., Tatarici, L. and Visan, C. 2012. Household's Financial Behavior during the Crisis. *Theoretical and Applied Economics*. XIX 5, no. 570: 137-144.

Chuah, S.-H. and Devlin, C. 2011. Behavioural economics and financial services marketing: a review. *International Journal of Bank Marketing* 29, no. 6: 456-469.

Daniel, K., Hirhsleifer, D. and Subrahmanyam, A. 1998). Investor Psychology and Security Market Under- and Overreactions. *Journal of Finance* 53: 1839-1885.

Diacon, S. and Hasseldine, J. 2007. Framing effects and risk perception: the effect of prior performance presentation format on investment fund choice. *Journal of Economic Psychology* 28, no. 1: 31-52.

Dittrich, D., Guth, W. and Maciejovsky, B. 2005. Overconfidence in Investment Decisions: An experimental Approach. *The European Journal of Finance* 11, no. 6: 471-491.

Edey, M. 2009. The Global Financial Crisis and Its Effects. *Economic Papers* 28, no. 3: 186-195.

Engel, J. F., Blackwell, R. D. and Miniard, P. W. 1990. *Consumer Behaviour*. Hinsdale, Ill.: Dryden Press.

European Commission. 2007. *EU Consumer Policy Strategy 2007-2013*.Brussels.

European Commission. 2012. *A European Consumer Agenda – Boosting Confidence and Growth*. 22.5.2012, COM(2012) 225 final. Brussels.

Fama, E. 1970. Efficient capital markets: a review of theory and empirical work. *Journal of Finance* 25: 383-416.

Federation of Finnish Financial Services. 2011. *Saving, Borrowing and Paying in Finland*.

Federation of Finnish Financial Services. 2012. *Saving, Borrowing and Paying in Finland*.

Gritten, A. 2011. New insights into consumer confidence in financial services. *International Journal of Bank Marketing* 29, no. 2:. 90-106.

Gross, D.B. and Soules, N.S. 2002. Do liquidity constraints and interest rates matter for consumer behaviour: evidence from credit card data. *Quarterly Journal of Economics:*149-185.

Hoelzl, E., Kamleitner, B. and Kirchler, E. 2011. Loan Repayment Plans as Sequence of nstalments. *Journal of Economic Psychology* 32: 621-631.

Jackson, J. K. 2010. The Financial Crisis: Impact on and Response by the European Union. *Current Politics and Economics of Europe* 2, no. 1: 27-73.
Kahneman, D. 2002. *Map of bounded rationality: a perspective on intuitive judgment and choice*. Nobel Prize Lecture, 8 December 2002.
Kahneman, D. and Tversky, A. 1979. Prospect Theory: An Analysis of Decision Making Under Risk. *Econometrica* 47, no. 2: 263-291
Kamakura, W. A. and Du, R. Y. 2012. How Economic Contractions and Expansions Affect Expenditure Patterns. *Journal of Consumer Research* 39, no. 2: 229-247.
Karila, A. 2012. Ihmisen osa maailman markkinoilla. [People in worlds' markets]. *The Finnish Journal of Business Economics*, no. 2/2012: 219-223.
Keloharju, M., Knupfer, S. and Rantapuska, E. 2012. Mutual Fund and Share Ownership in Finland. *The Finnish Journal of Business Economics*, no. 2/2012: 178-198.
Kennickell, A and Lusardi, A. 2004. *Disentangling the Importance of the Precautionary Saving Motive*. NBER Working Paper Series 10888. Cambridge, Mass. National Bureau of Economic Research, November.
Khademian, A. M. 2011. The Financial Crisis: A Retrospective. *Public Administration Review*, November-December: 841-849.
Knupfer, S. 2011. Miksi suomalainen ei sijoita? [Why Finnish are not investing?] *Chydenius,* no 2/2011: 39.
Kleinubing Godoi, C., Marcon, R. and da Silva, A. B. 2005. Loss Aversion: A Qualitative Study in Behavioural Finance. *Managerial Finance* 31, no. 4: 46-56.
Laitamäki, J., Järvinen, R., Lehtinen, U. 2008. Irrational Consumer Behavior in Financial Services: Implications for the Finnish Business and Society. In Rehbein, K. and Roman, R. M. (eds.) *IABS 2008 Proceedings. Nineteenth Annual Conference*, June 26-29, Tampere: 16-22.
Loibl, C., Kraybill, D. S. and DeMay, S. W. 2011. Accounting for the Role of Habit in Regular Saving. *Journal of Economic Psychology* 32: 581-592.
Luth, H. A. 2010. *Behavioural economics in consumer policy. The economic analysis of standard terms in consumer contracts revisited*. Erasmus Universiteit Rotterdam.
Miller, G. A. 1956). The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information. *Psychological Review* 63: 81-97.
Mintel Reports. 2006. *Behavioural Finance – US – March 2006*.
Mitchell, O. and Utkus, S. 2004. *Pensions Design and Structure: New Lessons from Behavioral Finance*, Oxford: Oxford University Press.
Mussweiler, T. and Schneller, K. 2003. What goes up must come down – how charts influence decisions to buy and sell stocks. *Journal of Behavioral Finance*. 4: 121-30.
Pantzar, M. and Kytö, H. 2010. Kauppa ja kulutus lamassa – Kahden suhdannekriisin vertailua. [Retailing and consumption during the recession]. In Lammi, M., Peura-Kapanen, L. and Timonen, P. (eds.) *Kulutuksen määrät ja tyylit talouden muutoksissa.[Consumption quantities and styles in change].* Annual 2010. Helsinki: National Consumer Research Centre: 9-21.
Pihlanto, P. 2012. Velkakriisi kurittaa Eurooppaa. Syväanalyysi kriisin taustoista. [The debt crisis in Europe. Deep analysis of the background]. *The Finnish Journal of Business Economics,* no. 1/2012: 118-129**.**
Raijas, A. and Kangassalo, P. 2010. Kuluttajien luottamus ja talouden suhdanteet. [Consumer trust and economical trends]. Teoksessa Lammi, M., Peura-Kapanen, L. & Timonen, P. (toim.)

Kulutuksen määrät ja tyylit talouden muutoksissa. [Consumption quantities and styles in change]. Annual 2010. Helsinki: National Consumer Research Centre: 75-94.
Rhodes, M. 2000. *Past Imperfect? The Performance of UK Equity Managed Funds*. London: FSA, Occasional paper no. 9.
Risku, I., Elo, K., Klaavo, T., Lahti, S., Sihvonen, H. and Vaittinen, R. 2011. *Lakisääteiset eläkkeet – pitkän aikavälin laskelmat 2011. [Statutory pension expenditure – projections 2011*]. Helsinki: The Finnish Centre for Pensions, Reports No. 05/2011.
Sarpila, O. and Haanpää, L. 2010. ”Rikas Mies Jos Oisin” Luksustuotteet osana suomalaisten vapaavalintaista kulutusta koskevia haaveita. [”If I were a rich man” Luxury products as a part of Finnish consumption dreams]. In Lammi, M., Peura-Kapanen, L. and Timonen, P. (eds.) *Kulutuksen määrät ja tyylit talouden muutoksissa. [Consumption quantities and styles in change].* Annual 2010. Helsinki: National Consumer Research Centre: 42-58.
Shachmurove, Y. 2011. A Historical Overview of Financial Crises in the United States. *Poznan University of Economic Review* 11, no. 1: 28-47.
Singala, S. and Kumar, R. 2012. The Global Financial Crises with a Focus on the European Sovereign Debt Crisis. *ASCI Journal of Management* 42, no. 1: 20-36.
Solomon, M. 2004. *Consumer Behaviour. Buying, Having and Being*. Upper Saddle River NJ: Prentice-Hall (6th Ed.).
Statman, M. 1999. Behavioral Finance: Past Battles and Future Engagements. *Association for Investment Management and Research*. November/December
Survey of Consumer Finances (SCF). 2010. The Federal Reserve Board 2011.
Statistics Finland. 2008. Consumer Barometer.
Statistics Finland. 2009. Consumer Barometer.
Statistics Finland. 2010. Consumer Barometer.
Statistics Finland. 2011a. Consumer Barometer.
Statistics Finland. 2011b. Finnish Household Assets and Liabilities.
Statistics Finland. 2011c. National Accounts 2001-2010.
Statistics Finland. 2011d. Statistics of Indebtedness.
Statistics Finland. 2011e. The Wealth Survey 2009.
Statistics Finland. 2012a. Tables/Consumer Price Index. www.stat.fi 20.6.2012.
Statistics Finland. 2012b. Tables/Income Distribution Statistics. www.stat.fi 20.6.2012.
Statistics Finland. 2012c. Tables/Total Statistics on Income Distribution. www.stat.fi 20.6.2012.
Statistics Finland. 2012d. Consumer Barometer.
The Wall Street Journal, October 23, 2012. Northern European Investors Steer Clear of Needy South by Charles Forelle.
The New York Times, October 24, 2012. Living Standards in the Shadows as Election Issue: Family Incomes Slum – A Disconnect Between Economic Woes and Political Solutions by David Leonhardt.
Thaler, R. 1985. Mental accounting and consumer choice. *Marketing Science*. 4, no. 3: 199-214.
Thaler, R. 1999. Mental accounting matters. *Journal of Behavioral Decision Making* 12: 183-206.
Thaler, R. and Benartzi, S. 1999. Risk aversion or myopia? Choices in repeated gambles and retirement investments. *Management Science* 45: 364-81.
Thaler, R. H. & Sunstein, C. R. 2008. *Nudge. Improving decisions about health, wealth and happiness*. Penguin books.
Tropeano, D. 2011. Financial Regulation after the Crisis. Where do we stand? *International Journal of Political Economy* 40, no. 2: 45-60.

www.fine.fi 20.6.2012
www.etk.fi/tutkimus. Tilastot, ennusteet 15.10.2012. [Statistics, forecasts 15 October 2012]