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**ON FINANCIAL QUOTIENT: THEORY AND
EMPIRICAL ANALYSIS**

SUN GANG

SINGAPORE MANAGEMENT UNIVERSITY

2021

On Financial Quotient: Theory And Empirical Analysis

SUN Gang

Submitted to Lee Kong Chian School of Business
in partial fulfillment of the requirements for the
Degree of Doctor of Business Administration

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This PhD dissertation has also not been submitted for any degree in any
university previously.



SUN Gang

19 July 2021

Abstract

On Financial Quotient: Theory And Empirical Analysis

Sun Gang

Financial Quotient (FQ) has become a common topic of concern in the global academic, business and social communities, but at this stage, academic research on FQ and its education are still immature, theoretical depth and empirical support basis are shortage, and influence factors of FQ and the degree of influence of each factor have not been systematically studied. Therefore, there is a large gap between research and practice.

The purpose of this Paper is to construct a set of scientific and reasonable FQ index for individuals, to find factors that can influence or predict personal financial quotient (PFQ), and to design a formula for calculating FQ index, to construct a set of FQ measures and to apply them systematically and universally to the assessment of PFQ. Based on a study of the established literature, as well as research within the financial industry, this Paper finds that Return on Investment (ROI), ability to control risk, sense of security and happiness construct as a proxy indicator of FQ. Meanwhile, based on interviews and research in the industry and referring to researches in the existing literature, the authors of this Paper selected five factors with strong correlations from dozens of influencing factors of FQ as explanatory variables of FQ in an attempt to uncover the relationship between influencing factors and FQ.

The five influencing factors of FQ include: Risk Appetite/Behavior Bias, Social Networking/Information Channel, Consumption Habits/Consumption Concepts, Growth Environment and Financial Literacy. This Paper will elaborate on the

theoretical underpinnings of FQ and its impact factors. Based on the China Household Finance Survey Database of the Survey and Research Center for China Household Finance (CHFS), this Paper selects 74 questions from 2,859 questionnaire questions to construct explanatory variables, and selects 18 questions to construct explained variables for empirical tests, then explores the correlation between each impact factor and FQ

This Paper comprehensively sorts out existing research and expounds the theoretical basis of FQ. The empirical part uses the questionnaires and data from CHFS to construct scoring tables for all explanatory variables and explained variables, drawing the following conclusions: There is a significant negative correlation between Risk Appetite/Behavior Bias and FQ index; a significant positive correlation between Social Networking/Information Channel and FQ index; no significant correlation between Consumption Habits/Consumption Concepts and FQ; a significant positive correlation between Growth Environment and FQ index; a significant positive correlation between Financial Literacy and FQ index.

This paper designs the PFQ index, which will be applied to the FQ education and evaluation in the future. The author will also deepen the research on FQ from multiple dimensions at multiple levels. Scholars, businessmen and educators are welcome to be involved in the research and educational promotion of FQ.

Key words: Financial Quotient, Financial Quotient Index, Financial Quotient Education, Financial Quotient Evaluation

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Chapter I Introduction

1.1. Research background

With rapid economic growth and the development of capital markets and the increasing complexity of society, FQ plays an important role in influencing success and happiness in life and is becoming increasingly important.

Intelligence Quotient (IQ) reflects man's ability to survive as a "natural creature" and is a methodology for living in the world, representing more the relationship between man and the natural world; emotional quotient (EQ) reflects man's ability to survive as a "social creature" and represents the relationship between men; and Financial Quotient (FQ) is man's ability to survive in an economic society as an "economic creature" and represents the relationship between man and material wealth. Financial, intellectual and emotional quotient have been listed by economists and educators as the "three quotients" essential to success in life.

This Paper argues that FQ, which is appropriate to one's own situation, is as important as intelligence quotient (IQ) and emotional quotient (EQ), and determines the success of personal career and life to a large extent, and also directly affects the sense of security and happiness in life.

In the era of economic globalization, the question of wealth is closely linked with people's daily lives, especially in the context of successive financial crises, and how individuals can protect and increase their family wealth has become a common concern in society. Meanwhile, FQ has become a topic of increasing concern in business, education and society.

However, the state of FQ and the level of financial education of the general public is not satisfactory. Behavioral economics research points out that investors' decisions are not always rational, and that investment decisions are subject to many personal factors in addition to external objective factors. The mainstream view is that a shortage of financial knowledge and financial literacy is likely to exert a negative impact on an individual's wealth.

However, the reality that cannot be ignored is that studies have pointed out that the Financial Literacy of the population in most countries is generally low, and even in the most developed countries, the majority of the population lacks basic financial knowledge. The Lusardi & Tufano (2015) find that, using a sample from the United States, only 30% of people have some understanding of the calculation of compound interest and the use of credit cards. This lack of financial literacy has led to a large number of investment failures and risky events.

A survey on FQ for Chinese people also shows the same problem. A Survey Report on Financial Quotient Perceptions and Behaviors of Chinese Youth released by Tsinghua University in conjunction with Ant Financial in 2016 suggests that FQ is the ability to perceive, manage and create wealth, and is considered the most important survival skill in modern society after IQ and EQ.

At present, various forms of Internet financial services and products are widely used among college students, but China's FQ and financial popularization education have not kept pace with them. Many young people have obvious misconceptions about FQ, the unplanned nature of consumption is obvious, financial awareness is high but FQ is shortage, and the acceptance of Internet

finance is high but risk screening ability is insufficient.

The above situation has led the country and society to start focusing on the education and promotion of FQ. Many countries have incorporated FQ education into their formal education systems. For example, United States began providing systematic FQ programs for elementary and middle school students relatively early. According to Zhang Jinglong (2012), in 1983, the Reagan administration produced the education report *A Nation at Risk: The Imperative for Educational Reform*, which emphasized FQ education as part of the math and reading curriculum.

The 1994 Amendments to the Elementary and Secondary Education Act in the United States formally incorporated FQ education into the curriculum, while the United States passed the Saving Matters for Everyone Act in 1997 and the United States government held a series of high-level conferences on FQ topics. In 2001, the Bush Administration of the United States passed the No Child Left Behind Act, in which the importance of financial education was once again involved in the provisions of the law, emphasizing that financial education should be incorporated into basic education. With the support from the government, the development of financial education in the United States has a more reliable guarantee.

Sun Cunyan (2018) studied FQ education in the UK, Japan and Israel. In 2011, the UK government started to introduce FQ courses for primary and secondary school students, systematically train them and recommend that children should receive financial education from the age of five. In Elementary schools, it is mainly taught in mathematics and health education classes, but in some schools,

it is not taught in a specific curriculum format; in secondary schools, it is taught in health education classes, but in some secondary schools, it is also included in the curriculum for business studies. Northern Ireland has also taken educational initiatives to improve students' FQ, and The secondary schools in Northern Ireland are somewhat different from the rest of the UK in that they teach appropriate financial planning knowledge mainly in optional courses such as home economics and life and work skills.

In Japan, the Act on Promotion of Consumer Education was introduced, and enlightenment education on the proper understanding of money is carried out in primary and secondary schools. A textbook called Stock Learning Game compiled by Tokyo Stock Exchange has been adopted by thousands of elementary and secondary schools. In addition, in Japanese high schools, course content with the theme of financial education is more common.

Israel is also world-renowned for its financial education of young people. In Israel, financial education is applied in student's education from an early age, and Israel has been successful in providing financial education in the form of delayed enjoyment education and entrepreneurship education.

Unfortunately, financial education in China started late, but in recent years, some primary and secondary schools in major cities have offered elective courses in economics and financial education. Shanghai, an international financial city, has led the development in financial education for young people. Savings, insurance, consumer and financial management are each covered in local primary and secondary school textbooks. FQ is also becoming increasingly important for Chinese entrepreneurs and business people, and some

Chinese business schools are incorporating FQ courses into their business administration education curriculum.

It can be seen that major countries around the world attach great importance to FQ and carry out FQ education universally and purposefully. Scholars are also deepening their research on FQ and exploring the theoretical significance and value of FQ education, and are also constantly developing channels and ways to practice the concept of FQ. The deep involvement of these countries' governments and people at multiple levels of society has enabled these countries to summarize in the implementation process, to continuously explore new approaches to FQ education, and to adopt innovative educational measures to make FQ competencies a core competency in their national literacy.

With the rise of FQ education, the assessment and measurement of PFQ has also become a topic of increasing social concern. FQ is quite different from IQ and EQ in the measurement and assessment methods. There are some relatively objective standards for IQ measurement, and a relatively subjective approach for EQ assessment. However, the academic, business, and scientific communities have not yet provided a set of scientific, complete, accurate and effective standards for measuring FQ. The existing discussions focus more on the impact of personal financial literacy on financial investment.

The importance of FQ is becoming increasingly apparent, but there is a lack of academic research results on FQ. In this Paper, we hope to select the topic of the study of factors influencing PFQ for academic research and to construct a set of PFQ index.

2.1. Research significance

2.1.1. Theoretical significance of the study

In the existing studies on FQ, scholars have studied FQ and its influencing factors more from a narrower perspective and at a single level, lacking a precise definition of FQ and empirical studies.

The significance of this Paper's theoretical research is that: 1) it expands the scope of research in the field of FQ by conducting theoretical and empirical studies on several factors influencing FQ; 2) it gives a broader and more profound connotation to FQ and enhances the research perspective; 3) it combines normative research with empirical research and achieves innovation in research methods; 4) it is scientifically and rationally sound by using authoritative, up-to-date and broad-coverage databases to conduct empirical research.

2.1.2. Practical significance of the study

This Paper will provide a relatively scientific and objective theoretical basis for the assessment and education of FQ, and at the same time, construct a set of assessment indicator for PFQ to provide a standard with high reference value for PFQ assessment.

3.1. Research framework

3.1.1. Overview of databases used for the study

The data used in this study come from the China Household Finance Survey (CHFS) project, a sample survey project conducted by the China Household

Finance Survey and Research Center throughout China (excluding Hong Kong SAR, Macau SAR and Taiwan), which is organized and managed by the China Household Finance Survey and Research Center (CHFSRC) of Southwestern University of Finance and Economics. This project aims to collect information on household finance at the micro level, including housing assets and financial wealth, debt and credit constraints, income and consumption, social security and insurance, intergenerational transfer payments, demographic characteristics and employment, and payment habits. Therefore, it will provide high-quality micro household finance data for academic research and government policy-making, and provide a comprehensive and detailed picture of household economic and financial behavior.

The CHFS has been conducted every two years since 2009. To date, CHFS (random sampling survey) has been successfully held in 2011, 2013, 2015 and 2017 respectively, and CMES has also been held once nationwide.

The samples of the first CHFS in 2011 were sourced from 8,438 households of 320 village (residential) committees from 82 counties (districts, county-level cities) in 25 provinces (autonomous regions, municipalities directly under the central government). The data are representative across the country and have been freely available since 2012 (Gan et al. (2013)).

The samples of the second CHFS in 2013 were sourced from 28,141 households of 1,048 village (residential) committees from 267 counties (districts, county-level cities) in 29 provinces (autonomous regions, municipalities directly under the central government). The data are not only nationally representative, but also provincially representative, and therefore reflect the economic and

financial conditions of Chinese households in a more comprehensive and detailed manner.

The samples of the third CHFS in 2015 involve 37,289 households of 1,396 village (residential) committees from 351 counties (districts, county-level cities) in 29 provinces (autonomous regions, municipalities directly under the central government). The samples of the first CMES in the same year cover 5,497 households of 234 villages and towns from 79 counties (districts, County-level cities) in 28 provinces (autonomous regions, municipalities directly under the central government).

The samples of the fourth CHFS in 2017 involve 40,011 households of 1,428 village (residential) committees from 355 counties (districts, county-level cities) in 29 provinces (autonomous regions, municipalities directly under the central government).

Special thanks are given to the CHFS project team of Southwestern University of Finance and Economics for supporting this research.

3.1.2. Research idea and main content

This Paper will accomplish the following: firstly, a review and analysis of existing theoretical studies. Then, through interviews within the financial industry and analysis of existing studies, sort out several impact factors that may have a greater impact on PFQ, and evaluate each factor in a scoring table composed of relevant questionnaires and answers from the CHFS database; construct the proxy indicator of FQ, explain the correlation between explanatory indicators and FQ proxy indicators through empirical test, and finally determine the main factors affecting FQ, and then design a set of PFQ index according to

the weight of each impact factor, and apply it to the FQ education and FQ assessment.

This Paper consists of seven parts.

I. Introduction, introducing the research background and significance, research ideas and framework and research methods.

II. Literature Review, introducing academic research on FQ and its evaluation criteria and influencing factors.

III. Research design, constructing a scoring table of explanatory variables and explained variables.

IV. Empirical tests, putting forward five hypotheses and conducting empirical testing, and reporting the results of the empirical tests

V. Regarding the interpretation of the results of the empirical tests, the results of the empirical tests of each of the five hypotheses are explained.

VI. Construct a scoring system to test the PFQ index.

VII. Conclusion, summarized on the basis of the conclusions drawn from the above study.

3.1.3. Research method

The research method of this Paper is a combination of normative and empirical research. Firstly, the literature review was conducted using the normative research method to review the relevant theoretical studies on FQ and to elaborate the theoretical construction on FQ. Next, based on the literature review and existing theories, the hypotheses of this Paper were derived, and

CHFS database were used as the research sample, regression analysis was conducted using the econometric research method to verify the validity of each hypothesis, thus deriving the correlation between each influencing factor and FQ, and constructing the PFQ index.

Chapter II Review of Literature

1.1. A review of research on the connotations of FQ

The term "Financial Quotient (FQ)" was first described in the book Rich Dad Poor Dad (Kiyosaki, 2001), which sold millions of copies in a short period of time, and the theory of FQ presented in it had a huge impact and attracted huge attention.

This book suggests that FQ is the wisdom of managing money and includes several aspects: the right concept of money, spending, and other financial concepts versus the ability to manage money by using and acquiring it correctly. In an economic society, everyone deals with economic money, which requires people to have the ability to understand money properly, use it wisely, and have the ability to master its development. The authors also point out that FQ has little to do with how much money you make, but being able to keep the amount of money and how long you can make that money work for you is an important connotation of FQ.

At the same time, the book suggests that FQ is made up of four areas of expertise: first, accounting, or learning to calculate; second, investing, which aims to multiply wealth with limited capital; third, understanding the market, keeping abreast of its supply and demand; and fourth, the law, which helps businesses and individuals operate within the bounds of legal compliance. In addition, the act of using wealth reflects the ability of man to use the laws of money, and this ability to use includes both consuming wealth and creating wealth, which is predicated on the renewal of ideas and the mastery of knowledge, and is the carrier of ideas and the realization of knowledge. These three factors interact

with each other to become the necessary qualities of a rational economic person.

Later, the book's author supplements to the concept of FQ: "As you get older, it means your FQ is increasing if your money can provide you with more choices on freedom, happiness, health and life." He goes on to explain, "Many people earn more and more money as they get older, but the money gives them less and less freedom while they have more and more bills.

If a person has more and more bills, it means that the person has to work harder to pay those bills, which is viewed as a sign of low FQ by the criteria described in the Rich Dad Poor Dad. The author also suggests "Some people make a lot of money, but the money doesn't make them happier, which is also a sign of low FQ." With the best-selling of this book, the discussion on FQ and financial education was carried out in China and abroad, and scholars began to conduct research one after another.

Wikipedia definition of financial quotient: sometimes also referred as financial intelligence quotient (FiQ), is the ability to obtain and manage one's wealth by understanding how money works.

At present, there is no unified definition of FQ in academia, but there are two main representative views. The first view, which is the most popular, is that FQ is a person's ability to acquire wealth, mainly referring to an individual's intelligence and ability to manage money in terms of investments and wealth management. The second view is that FQ is a comprehensive indicator, and evaluating the level of a person's FQ should not only focus on the ability to make money, but also consider factors such as ability to control risk, and that individual's subjective feelings, such as a sense of security and happiness, are

also important indicators of FQ.

1.1.1. First important factor of FQ: return on investment

Earning a return on investment is one of the key components of FQ.

Since the term "financial quotient" was introduced, scholars have more often considered the ability to acquire wealth as the main component of FQ. Sinclain & Zhu Ruoyu (2001), for example, suggests that FQ is the combination of people's multiple intelligences and personality qualities in financial management qualities, and the wisdom and ability to become wealthy as demonstrated by actual economic business activities. According to Yan Gonggu (2002), FQ in a narrow sense is to be measured by the return on investment and financial management, while FQ in a broad sense includes the ability of any input and output aspects, such as feelings, social relationships and time, etc., and people's ability to invest and output in these areas can also be measured by FQ.

According to Liu Junyan (2003), FQ includes the following elements: awareness of money, how to identify and grasp business opportunities or how to create wealth, daily financial management skills and consumption quality. Niu Xiaoping (2012) defines FQ as the ability to invest and produce output. FQ is a person's ability to survive in an economic society, which is not something you are born with, but must be acquired through financial education. In addition, it is one of the three indispensable qualities of modern social competence alongside IQ and EQ. According to Sheng Derong & He Huazheng (2012), "FQ is a measure of the sensitivity, decisiveness, wisdom, science and ethical ability to gather, take, create and use money to increase the value of property and make

it fit for purpose.

Some scholars have suggested that FQ reflects the ability to understand the laws of investment, and the ability to make investment decisions. Mandell (2009) proposes that FQ is a person's ability to make financial decisions about trade-offs between short-term and long-term interests. According to Bai Xinguang (2007), “the so-called FQ is a person's acumen in judging money, the ability to understand and grasp what can create wealth, and is an indicator to evaluate the level of a person's ability to recognize and apply the laws of money movement.” Qian Yawen & Shi Chengkui (2009) point out that FQ is a person's ability to understand money and manage it, and is the wisdom of managing money. The education of people's view of wealth should be proposed with the expression of IQ and EQ education. Through education, people's understanding of the means of acquiring wealth and how to enjoy it are improved, the correct concept of money and basic financial management skills are cultivated, and the overall quality of people is improved.

Wu Wenqian (2011) also proposed that FQ refers to a person's ability to recognize and harness the laws of money, and its core content is to proficiently master various aspects of financial knowledge, to have a high level of financial management skills, and to form a good and reasonable view of consumption on the basis of financial knowledge and skills.

Zheng Huan (2017) proposed that FQ refers to: “a person's ability to recognize and manage money and assets in order to dispose and use wealth more rationally and effectively and to make money work better for life, as well as financial activities in daily life, such as spending, money management, risk avoidance,

and assessment decisions based on one's financial situation, i.e. the process of planning and managing money in order to achieve one's desired financial goals, covering the comprehensive awareness, needs and abilities expressed in one's economic behaviors such as saving, spending, budgeting, credit borrowing, risk management, and asset management.”

Sun Cunyan (2018) proposes that "FQ" refers to a person's ability to recognize and manage the laws of money movement, and is the financial wisdom that a person possesses, including three elements: concept, knowledge and behavior. The concept here refers to the awareness and understanding process of money, wealth and wealth creation; the knowledge here refers to the accumulation of knowledge essential for investment and entrepreneurship, including basic financial-related knowledge, financial management-related knowledge, investment and finance-related knowledge, basic legal and regulatory knowledge, etc.; the behavior here is the performance and carrier of the concept, the coordination and implementation of the concept and knowledge between the self and the environment, highlighting the behavior quality and personal ability of personal self-breakthrough, self-activation and self-control. By complementing and supporting each other, these three elements together form a dynamically evolving concept of FQ.

Based on the above academic research results in the past 20 years, the Paper proposes that a person's ability to recognize wealth, understand the laws of wealth creation and management, and gain revenue through investment is an important component of FQ, which is highly correlated with investment ability. The return on investment is one of the main factors to measure FQ, and the assessment of an individual's FQ cannot be separated from the examination of

investment ability.

1.1.2. Second important factor of FQ: risk control ability

The rate of return on investment reflects to a large extent the FQ of an individual, which is not the only indicator of FQ. Risk means exposure to uncertainty. Financial markets are highly volatile and subject to systemic risk, and investors should have risk-aware and risk-controlled ability in order to survive in the market in the long term. Academics also consider the ability to control risk as one of the main components of FQ.

For FQ, the ability to control risk is an important part of it. Bowmanward (1980) risk-return study of 85 U.S. firms noted that higher risk control is effective in increasing the level of returns even when exposed to higher risks.

Studies on wealth distribution and the Gini coefficient show that there are many reasons for the gap between the rich and the poor. Will risk-loving and "bold" behavior be a booster for low-income people to lift poverty, or will it simply make the poor poorer and the rich richer? Studies by different scholars have given different answers.

Díaz et al. (2003) find that individual's ability to control risk plays an important role in influencing the wealth gains. General speaking, good risk control helps the poor to lift from poverty and accumulate wealth, acting as a booster for low-income people to lift from poverty. Djankov et al. (2006) suggests that neglecting risk control can easily damage one's wealth, and that blind "risk-taking" universally reduces the wealth of entrepreneurs, thus confirming the proposition that ability to control risk is an important component of FQ.

Many scholarly findings demonstrate that there is a positive relationship between the ability to control risk and the level of wealth. Shaw & Kathryn (1996) studied the relationship between ability to control risk and income levels by using data from the Consumer Finance Survey and found that people with strong ability to control risk had higher income levels. Le et al. (2011) summarized the research findings on ability to control risk and economic level determinants, studied the ability to control risk for individuals of different genders separately, and again found a significant positive relationship between ability to control risk and wage level. In contrast, a study by Huijun Zhou (2020) based on the China Household Financial Survey (CHFS) shows that ability to control risk plays an important role in improving the level of wealth for households with different wealth levels; for the middle class, ability to control risk helps to increase their wealth; for wealthy households, the increase of ability to control risk also helps to increase their wealth, but the level of increase is smaller.

In summary, the ability to control risk is an important survival and development capability for a wide range of people and directly affects their wealth levels and income to a large extent. Therefore, this Paper suggests that ability to control risk is one of the important factors that constitute FQ.

1.1.3. Third important factor of FQ: sense of security and happiness

In addition to return on investment and ability to control risk, academics have also introduced subjective personal feelings into the study of the definition of FQ, with many scholars suggesting that a sense of security and happiness are also important factors that constitute FQ.

Currently, sense of insecurity, on the other hand, is plaguing societies globally. At the macro level, sense of insecurity has contributed to a steady decline in consumer confidence in developed countries since the late 20th century (Bentolila & Ichino (2008)).

At the same time, the problems associated with sense of insecurity can be projected into society and can have a considerable degree of negative impact on an individual's mental health (Clark & Georgellis (2013)), including family breakdown (Larson et al. (1994)), depression (Meltzer et al. (2009)), and even cause suicide (Blakely et al. & TA (2003)).

The sense of insecurity plagues human physical health. Some researchers have found that sense of insecurity increases an individual's risk of heart disease and mental illness (Catalano (1991)), and Jensen & Richter (2004) divided more than 4,000 families into a group of whether they were owed a pension and a group of regular pensioners and found that those lacking effective pension reported more chest pain. A study by Mailis-Gagnon et al. (2007) analyzed 1242 pain patients who had been seen for three consecutive years and found that the vast majority of patients felt sense of insecurity, for example, because they were unemployed or retired and had no regular financial resources.

Chou et al. (2016) believed that the greater the individual's insecurity, the more likely they are to report physical pain; the number of unemployed people in the household can be used to predict the number of painkillers consumed by the household. With more unemployed people in the household, more painkillers are consumed; furthermore, individuals who recall past worrisome economic situations or unemployment experiences are less tolerant of pain and report

higher levels of pain perception. A recent large sample survey also found that sense of insecurity was significantly associated with individuals suffering from spinal pain (neck pain and chronic back pain, etc.) (Yang & Haldeman, 2020). People who suffer from these types of physical injuries are difficult in enjoying a happy life.

The general public perception is that the rich are happier than the poor. A series of research findings have emerged in academia on the relationship between desire and happiness. Easterlin (1974) made an early study combining happiness with economic growth and found that within a country over the same period, the rich were happier than the poor, arguing that income was an influential factor in happiness. However, he also found that, with the passage of time, the happiness of the residents did not increase with the increase of income, but decreased after reaching a certain income level, because people could not obtain a stronger happiness. There was an "inverted U-shaped" characteristic between income and happiness, which is the famous "Easterlin paradox" in the field of FQ research.

Yu Xin & Fu Pengcheng (2010) summarized research on the "Easterlin paradox" and found that happiness is not only related to one's absolute income, but also to one's relative income. If the average income level of people increases and level of comparison increases, it leads to a downward shift in the happiness-income curve. Chai Su-Fang & Liu Yi-Bing (2010) observed from the perspective of human desires and found that human desires are constant and never-ending, that fulfilled desires are updated by new ones, and that unsatisfied desires generate frustration. According to the American economist Samuelson's "happiness equation", $\text{happiness} = \text{utility}/\text{desire}$, the higher the desire, the lower

the happiness, and the gap between income and desire determines happiness.

From the perspective of hierarchy of desires, according to the theory of hierarchy of needs proposed by Maslow (1964), human needs are divided into low level material needs, medium level social needs and high level spiritual needs, corresponding to the levels of happiness as material happiness, social happiness and spiritual happiness. As the economy grows and people's material needs are satisfied, they will develop higher needs and pursue higher levels of happiness. If a person is in a transitional state between two levels of need, the intense happiness at the beginning of satisfying the need slowly diminishes, despite the increase in income. If people's higher needs are not met, the phenomenon of "rich but unhappy" occurs.

Therefore, rising incomes, both absolute and relative, increase individuals' subjective happiness; however, as psychological adjustment and social comparisons further intensify, individuals' desires also rise, which can reduce people's ratings of their own happiness (Solberg et al. (2002), Stutzer et al. (2004), Bruni et al. (2006), Brown et al. (2009), McBride et al. (2010)).

Festinger's (1954) social comparison theory, on the other hand, states that people obtain an evaluation of themselves by comparing themselves with people similar to themselves, in both upward and downward directions and in terms of ability, income, social status etc. Because of this comparative psychology, people gain a perception of their abilities, income, social status, etc. The psychology of upward comparison therein may, on the one hand, inspire a person to strive for a career; on the other hand, it may create an inferiority complex and reduce a person's sense of happiness.

So what kind of mental qualities or mental building skills should high FQ possess? According to He Fang (2010), FQ constitutes as a basic quality of human beings and the basis for self-improvement, self-reliance and self-activity. Through FQ education, with the help of the expressions of IQ and EQ education, the education of people's view of wealth is proposed. Through the education, people's awareness of the means of acquiring wealth and how to enjoy it is raised, helping them to establish a harmonious and healthy view of wealth, to correctly understand the relationship between wealth, income and desire, to ease the psychological distress brought about by a sense of unhappiness, and to enhance their understanding of the meaning of life, thus promoting people to have a harmonious, free, happy and contented life.

In summary, the mainstream academic view is that the lower a person's desires are, the more they can enhance happiness, and the more at ease and comfortable an individual is. Sense of security and happiness are important to personal happiness, and therefore sense of security and happiness are also important factors that constitute FQ.

1.2. A review of research on the factors affecting FQ

Through the analysis of the existing research results on the factors influencing FQ and the interviews between the authors of this Paper and professionals within the financial industry, professors and researchers in academia, this Paper proposes that there are many factors that influence PFQ, and the five major factors, namely individual's Risk Appetite/Behavior Bias, social network/information channels, consumption habits/consumption concept, Growth Environment, may be the main factors that influence FQ. This Paper

will focus on a review of the available academic research on these five key factors that influences FQ.

2.1.1. First important factor affecting FQ: risk appetite/behavioral bias

Risk attitudes and risk perceptions of investors greatly influence investment decisions and have a decisive impact on investment choices, and risk appetite and behavioral bias affect individual asset allocation behavior, and research has shown that an investor's risk attitude has a significant impact on the composition and proportion of the investor's portfolio (Crés (2003)).

Shum & Faig (2006) empirically investigate the determinants of stock ownership using data from the U.S. Consumer Finance Survey 1992-2001 and find that individuals' risk aversion exhibits a significant negative relationship with investment in risky assets, i.e., those who are risk averse are more reluctant to invest in riskier financial products.

Gusio & Paiella (2004) construct a direct measure of risk aversion using household survey data and find that investor decisions are highly correlated with risk aversion, while finding that risk aversion individuals invest in risky assets at a significantly lower rate than risk appetite individuals. In general, risk aversion households are reluctant to engage in risky assets such as equities (Guiso et al. & Jappelli (2008)).

Research on Chinese investors likewise suggests that Chinese investors generally tend to be risk-trending relative to investors in developed markets (Zhang, 2006). Research shows that the degree of risk aversion of investors is negatively related to the proportion of risky assets of investors, the higher the level of risk aversion of Chinese fund investors, the lower the proportion of

risky assets in the asset allocation structure, and vice versa (Tang Yingkai & Zhao Hongyu (2006)), risk averse people tend to pursue financial products with lower but more stable returns. Based on the optimal asset choice model, Wang Hongju & Zhang Huilian (2006) used partial equilibrium analysis to explore the effects of inflation, stock market return fluctuations, and consumer risk appetites on the demand for savings and deposits, and found that the more risk averse residents are, the stronger the demand for savings deposits is expressed, which is ultimately reflected in a higher proportion of savings-type deposits to household financial assets.

Campbell et al. (2003) proposed that risk appetite and portfolio diversification show a hump-shaped function. The reason for the hump-shaped curve is that moderately risk-averse investors will hedge their future risks through fully diversified investment to ensure investment utilization is maximized, so they are most likely to hold fully diversified portfolios. On both sides of the hump-shaped curve, extremely risk-averse investors tend to hold low diversified portfolios which contain merely risk-free assets, while investors with an extreme risk appetite also tend to hold low diversified portfolios containing merely risky assets. This conclusion may be more in line with the actual situation.

Some scholars have also proposed opposite views. Gomes & Michaelides (2005) indicated that risk-averse investors are more cautious and more likely to accumulate wealth than those with a risk appetite, and thus are more likely to hold more financial products after accumulating a certain amount of wealth. On the contrary, risk lovers do not care how much wealth they accumulate, and it may all be squandered, so they lack sufficient wealth accumulation for

investment. They are less likely to invest in risky assets.

Among the many behavioral choices, overconfidence may be correlated with wealth management and investment and risk control abilities. In addition, overconfidence is generally considered a behavioral bias (Barber & Odean (2000), Barber & Odean (2001)), with some traders choosing to engage in risky market transactions in part because they believe they have better investment abilities and skills than others (Black (1986)).

Empirical evidence suggests that overconfident individuals are more actively involved in investing in financial markets, they are overly confident in their abilities and may be prone to misinterpret information (Odean (1999)), increase unnecessary trading volume, and as a result increase stock transaction costs and reduce the return on investment (Odean (1998)). However there are also some researches suggesting that confident people are more likely to translate perceptions into action and more likely to save for retirement in advance (Wiener & Doescher (2008)). This phenomenon is more pronounced for those on low and middle incomes (Lown et al. (2015)). Empirical evidence from Germany and Singapore finds that many households do not hold equities, despite a considerable equity premium relative to risk-free assets, and that overconfidence and over optimism can create a significant positive effect on the ability to take financial risks (Breuer et al. & Salzmann (2014)).

In summary, the findings of scholars show that the mainstream view is that excessive risk appetite and overconfidence can harm return on investment and lead to excessive investment risk, and that people who are too risk-averse and too afraid of risk are both relatively weak in wealth management.

2.1.2 Second important factor affecting FQ: social networking/information channels

Investment is not only of economic nature, but also a social interaction behavior. The range and quality of an individual's social circle, social network and information channels greatly affect the decision-making and judgment of asset allocation.

According to existing studies, people in the same group tend to behave similarly due to specific similar characteristics or the same environment, indicating that information is transitive in the group (Manski (2000)), and the spread of information may lead to a convergence of behavior among all participants (Ellison & Fudenberg (1995)).

Many individuals are willing to conform to a single, homogeneous standard of behavior. Although their underlying behavioral bias is different, they are willing to conform to the dominant social choice because they recognize that even a slight deviation from social norms can seriously damage their position in a given group, individuals are willing to compare themselves to their surroundings, social norms can have an important impact on investment decisions. By observing the investment decisions of other members of the group, individuals tend to make investment decisions similar to those of the members of the circle in which they live (Bernheim (1994), Campbell & Cochrane (1999)).

Most empirical studies have found that social interactions generally promote stock market participation (Guiso et al. (2008)) and that there is a correlation between whether individuals participate in risky market investments, such as stocks, and the average stock market participation rate in the community in

which they live, and that this is more pronounced in more socially engaged communities (Brown et al. (2008)). Stock market participation is influenced by social interaction, and when looking at investors in a group, it can be found that when more people in the group participate in the capital market, investing becomes more attractive, and community residents can learn from the interaction, learn about opening and trading accounts and other operations, and learn to access and process stock market information, and this effect is more pronounced in states with higher rates of stock market participation (Hong et al. (2004)).

When friends and colleagues participate in stock market investment, individuals may feel happy in exchanging stock market topics with them. This is because the exchange of common interests and topics can bring happiness to investment decision-makers, and it is also an endogenous interaction mechanism that promotes participation in the stock market (Becker (1991), Hong et al. (2004)).

Research also reveals that similar investment decisions can also be made among college alumni, and that shared cultural imprinting and friendships developed over time, as well as extensive alumni networks reinforce this shared decision-making mechanism, which also demonstrates important role of social norms formed through school education (Massa & Simonov (2004)). Cohen, Frazzini, and Malloy (2008) identified social networking by utilizing university relationships: Mutual fund managers and company board members are identical in educational background. They found that mutual fund managers invest more heavily in interconnected stocks. Such connection is formed through a common educational background, and these interconnected stocks perform better than those that are not connected. They deem social networking as an important

mechanism for the information flow.

Cohen et al. (2010) investigate the impact of social networking on agents' ability to gather information about the strengths of firms, using new data on the educational backgrounds of sell-side analysts and senior corporate executives, and find that stock returns are high when analysts have educational ties to firms, making social networking critical to the success of financial investment analysis.

In summary, the prevailing academic opinion is that extensive and high quality social networking and information channels can have a significant positive impact on investment performance, and that attending a prestigious university with access to a high quality alumni circle, in particular, can significantly enhance investment performance, and therefore social networking and information channels are important influencers of FQ.

2.1.3 Third important factor affecting FQ: consumption habits/consumption concept

All activities such as clothes they wear, the food they eat, the places they live, the books they read, and sports and recreational activities they participate in express people's social status, lifestyle, personality tastes, social identity and social comparison. These symbolic expressions function are socially and culturally determined in the historical processes, which are at the same time visible and palpable and are readable by members of society. Therefore, consumer choice is not entirely an individual and independent choice, but more like a social choice.

The symbolic value of product gives consumption a social performance and social communication function (Leibenstein et al. (1950), Mason (1993)).

Luxury consumption has a strong appeal to consumers precisely because of the social group's recognition and esteem for the consumption of such items (Solomon (1983)).

Existing studies show that the consumption behavior and consumption habits of individuals and families play an important role in asset allocation. A rational consumer must not only consider the current income, but also consider the total income of his/her life to make consumption investment decisions (Modigliani & Brumberg (1954)). Friedman (1957) proposed the persistent income hypothesis, Hall (1978) proposed the random wandering hypothesis etc.

In these related studies of consumer choice behavior, scholars have proposed a framework for analyzing consumer demand that reflects the influence of their individual preferences, which is based on the basic principle of maximizing consumers' utility by analyzing their preferences for various types of goods based on budget constraints. In this analytical framework, the level of consumption is closely related to the consumer's assets and income.

Song Zhenxue (2007) believes that every family must weigh and choose between current consumption and future consumption, or in other words, weigh and choose between current consumption and investment. Therefore, finance and capital markets are subject to households' future consumption. Zou Hong & Yu Kaizhi (2009) elaborated on the impact of consumption on household assets, and pointed out that the expected expansion of consumption during the economic transition stimulates the rapid growth of financial assets.

Many scholars argue that people with higher levels of consumption are more likely to enjoy the pleasures of life, but may also engage in a disproportionate

share of risky investments in pursuit of high returns, and that those with high levels of consumption may have weaker levels of risk control (Pelizzon et al. & Weber (2009), Chetty et al. (2017)).

2.1.4. Fourth important factor affecting FQ: growth environment

A person's growth environment is likely to have a subtle influence on his/her wealth management capabilities. Existing studies have noticed the influence of personal growth atmosphere (such as culture, family and harmony) on financial investment behavior (Voors et al. (2012), Cameron & Shah (2015)).

The influence of growth environment on personal wealth management capabilities is mainly manifested in the following aspects:

1. The parents' experience in economic activities enables children to pay attention to and participate in economic activities from an early age and accumulate experience, and get involved in business, financial investment and other activities earlier.
2. The city and community where an individual grows up may have a great impact on personal growth, including the city's entrepreneurial culture, family interaction with the outside world and "relationship" that may lead individuals to participate in business or investment, influencing the investment returns and risk control. Studies have shown that children who have grown up in big cities are more able to control the risk in financial investment (Malmendier et al. (2011)).
3. Children from relatively affluent families or whose parents have a high social status are more likely to invest in high-risk financial assets, with a higher degree

of investment diversification (Carroll (2000)). Even if they suffer losses, they are more capable of resisting risks (Van et al. (2012)).

4. Whether a child experiences a major disaster in childhood may also affect his/her ability to invest in the future. A recent paper discusses whether fatal disasters facing CEOs at an early age will affect their corporate risk-taking capabilities (Bernile, Bhagwat & Rau (2017)). Their evidence suggests that CEOs who have experienced natural disasters without extremely negative consequences seem to be less sensitive to risk, and that companies they lead behave more aggressive. The research of Bernile, Bhagwat & Nguyen (2016) also shows that personal catastrophic experience can affect the attitude of a professional fund manager towards risk.

5. Family size and structure are major factors affecting family economic status, and studies have suggested that the expansion of family size may have a negative impact on investment (Barber & Odean (2001), Agnew et al. (2003), Calvet & Sodini (2014)). The research on “sandwich” family structure also shows that family structure has a significant influence on family risk asset investment behavior; in particular, if families expect their children to bear more expenses during college, they are more likely to invest in stocks early to earn extra income, which is “precautionary” to some extent (Bogan (2015)).

In summarizing the findings of the existing literature, this Paper tentatively predicts that: parents' occupation and experience, wealth status have a very important role in influencing children's development, the geographical location of the child also has an impact on the development of children's business awareness and entrepreneurial philosophy, and family size also influences

children's economic behavior decisions.

2.1.5. Fifth important factor affecting FQ: financial literacy

There has been a great number of researches and discussions on the impact of financial knowledge and financial literacy on wealth management capabilities. Scholars generally believe that sound financial literacy is significantly positively correlated with investment capabilities and risk control capabilities. First of all, there is a fact that the financial literacy of people around the world is generally low, and they lack effective financial investment and management capabilities (Lusardi et al. (2015), Lusardi & Mitchell (2007), Christelis et al. (2010), Disney & Gathergood (2013)).

People with low financial literacy are less likely to participate in stock investment (Rooij et al. (2011)) and hold diversified portfolios (Guiso et al. (2013)), Abreu & Mendes (2010)); they are more likely to default on financial borrowings (Gerardi et al. (2010), and invest in mutual funds with higher management fees (Hastings et al. (2011)).

Families with higher financial literacy are more likely to participate in financial investment, improve the status quo of insufficient investment opportunities (Rooij et al. (2011), improve innovation (Oseifuah (2010)), and increase the possibility of obtaining credit from formal financial institutions (Akudugu et al. (2009), Klapper et al. (2013)).



Chapter III Research Design

In order to study the relationship between PFQ index Y and Risk Appetite/Behavior Bias ($X1$), Social Networking/Information Channel ($X2$), Consumption Habits/Consumption Concepts ($X3$), Growth Environment ($X4$) and Financial Literacy ($X5$), this Paper first selects appropriate questionnaire questions for each explanatory variable, and then takes an arithmetic average of the scores of the questions to get the scores of $X1$ - $X5$.

Similarly, this Paper selects appropriate questions for the individual's ROI ($Z1$), risk control ability ($Z2$), and sense of security and happiness ($Z3$), and measures the score of each surveyed person to estimate the potential factor of PFQ.

1.1. Data sources and model construction

1.1.1. Data source

The data used in this study come from the China Household Finance Survey (CHFS) project, organized and managed by the China Household Finance Survey and Research Center of Southwest University of Finance and Economics. CHFS conducted the China Household Finance Survey in 2011, 2013, 2015 and 2017, with a sample covering 29 provinces (autonomous regions and municipalities directly under the central government), 355 counties (districts and county-level cities) and 1,428 village (residence) committees, with an effective sample size of 40,011 households.

From a total of 2859 questionnaires in the three datasets of household (hh), individual (ind) and region (master), this Paper selects 18 questions related to this study to construct the variable $Z_{1i} \sim Z_{3i}$ and selects 74 questions to

construct variables $X_{1i} \sim X_{5i}$. In this Paper, for each question in each scoring table, its question number in CHFS is listed.

1.1.2. Model construction

Z_{i1} , Z_{i2} and Z_{i3} are the standardized return indicator, ability to control risk indicator, and security and happiness indicator respectively, and the latent factor is estimated in this Paper by the following factor model, i.e., PFQ.

$$Z_{ij} = \alpha_j + \beta_j Y_i + u_{ij}, \quad \text{Formula 3.1}$$

3.1

where, $i = 1, \dots, N, j = 1, 2, 3$.

writing it in vector form.

$$Z_i = \alpha + \beta Y_i + u_i,$$

Formula 3.2

$$\text{where, } Z_i = \begin{pmatrix} Z_{i1} \\ Z_{i2} \\ Z_{i3} \end{pmatrix} \quad \alpha = \begin{pmatrix} \alpha_1 \\ \alpha_2 \\ \alpha_3 \end{pmatrix} \quad \beta = \begin{pmatrix} \beta_1 \\ \beta_2 \\ \beta_3 \end{pmatrix} \quad , \quad u_i = \begin{pmatrix} u_{i1} \\ u_{i2} \\ u_{i3} \end{pmatrix} .$$

Formula 3.3

Supposed that Y_i and u_i satisfy the following properties:

$$E(Y_i) = 0,$$

$$E(Y_i Y_i') = I,$$

$$E(Y_i u_i') = 0,$$

$$E(u_i) = 0,$$

$$E(u_i u_i') = \Omega.$$

In this Paper, the author uses principal component analysis to estimate the latent factor Y_i , and make above hypothesis

$$\text{cov}(Z_i) = \beta\beta' + \Omega \dots \dots$$

Formula 3.4

The spectral decomposition of the Z_i covariance matrix

$$\text{cov}(Z_i) = \lambda_1 P_1 P_1' + \lambda_2 P_2 P_2' + \lambda_3 P_3 P_3',$$

Formula 3.5

where λ_j is the eigenvalue and P_j is the λ_j corresponding eigenvectors, the $j = 1, 2, 3$.

Y_i is the first principal component, then the factor loadings

$$\beta = \sqrt{\lambda_1} P_1$$

Formula 3.6

After obtaining the estimates of β , this Paper calculates the latent factor Y_i as the weighted average of Z_{i1}, Z_{i2}, Z_{i3}

$$Y_i = \frac{1}{\sqrt{\lambda_1}} \sum_{j=1}^3 P_{1j} Z_{ij}.$$

Formula 3.7

To explore the correlation between FQ and personal characteristics such as risk appetite/behavioral bias, social networking/information channels, consumption habits/consumption concept, growth environment and financial literacy, the following multiple linear regression model is developed

$$Y_i = \gamma_0 + \gamma_1 X_{1i} + \gamma_2 X_{2i} + \gamma_3 X_{3i} + \gamma_4 X_{4i} + \gamma_5 X_{5i} + \epsilon_i$$

Formula 3.8

where Y_i is the estimated FQ index using $Z_{i1} \sim Z_{i3}$ in the previous step, $Z_{i1} \sim Z_{i3}$ and $X_{i1} \sim X_{i5}$ are the mean of the question scores under each category. Because this Paper has taken full account of the cross-sectional variance of the scores when assigning scores to the question answers in order to make the scores contain as much information as possible, the values of the variables are calculated by a direct arithmetic average of the question scores under each category, without further weighting.

This Paper is concerned with the significance, sign and absolute magnitude of regression coefficients $\gamma_1 \sim \gamma_5$ to test whether they support the following hypothesis

- (1) Given X2-X5, people with more extreme risk appetite tends to have lower FQ index.
- (2) Given X1, X3-X5, people with wider social networking and higher quality of access to information tend to have higher FQ index.
- (3) Given X1, X2, X4, X5, people who have a habit of consuming beyond their condition tend to have lower FQ index.
- (4) Given X1-X3 and X5, people who grow up in a growth environment where the business environment and entrepreneurial atmosphere are more influential tend to have higher FQ index.
- (5) Given X1-X4, people who have higher financial literacy tend to have higher FQ.

That is, to check whether the original hypothesis $H_{01} \sim H_{05}$ is rejected

$$H_{01}: \gamma_1 = 0$$

$$H_{02}: \gamma_2 = 0$$

$$H_{03}: \gamma_3 = 0$$

$$H_{04}: \gamma_4 = 0$$

$$H_{05}: \gamma_5 = 0$$

For example, if the regression results show that the original hypothesis H_{01} is rejected and the sign of the coefficient is negative, it means that the data supports hypothesis 1, which states that people with extreme risk appetite tend to have lower FQ index tends in the given X2-X5.

2.1. Explanatory variables

2.1.1 Risk appetite/behavioural bias X1

Based on the China Household Financial Survey (CHFS), this Paper constructs a scoring table on Risk Appetite/Behavior Bias by selecting appropriate questions. Based on the research results of the existing literature, as well as interviews with industry insiders and the author's own deep understanding of risk in his years of professional financial and economic work, the answer options for each question are assigned a certain score; the higher the score is, the more likely people are keen on acquiring high returns under high risks; they are fearless and prefer high-risk activities.

Of the questions selected for this Paper, the question 1 is the number of personal startups. This paper believes that entrepreneurs are more willing to take risks. Particularly, multi-entrepreneurs and serial entrepreneurs generally have a

higher risk appetite, and are more likely to have a higher level of confidence and self-efficacy, so it is speculated that such behavior bias is relatively aggressive. The questions 2-3 are whether to engage in stock trading. The questions 4-5 are borrowing money for stock investment. This paper speculates that such investors are less sensitive to risk and are more likely to be anxious. The fluctuations in the stock market can easily have a great impact on their life. The question 6 examines the respondent's appetite for risk and will be risk lover if he or she chooses a high-risk investment project. The question 7 is participation in financial derivatives trading, a type of investor that tends to prefer high-risk investments. The eighth question is investment choice, which measures risk appetite based on investment preferences for financial products with different risk levels and return characteristics; this question is a classic expected return choice question, and risk lovers are often willing to go out of their way to pursue high rates of return while ignoring risk.

The questions 9-10 are for the gain/loss tradeoff, and for those who are willing to participate in the gain/loss game with lower expected returns, this Paper believes that there is a higher risk appetite. The question 11 was whether there had been a traffic accident, and if so, the presumption was that the behavioural risk was high. The question 12 is about the personal and property damage caused by the traffic accident, and if the damage is high, the presumption is that the behavioural risk is high.

The questions 13-14 are about the reasons for investing in financial products, with different investment bases reflecting different preferences. The question 15 looks at whether other financial products are also invested in, and if high-

risk products such as financial derivatives are invested in, it indicates it is a high risk lover. Questions 16-17 are about external borrowing, where there is a high risk appetite if a very high interest return is sought.

This Paper sets up a risk appetite/behavioral bias scoring table with several answers to each of the 17 questions, and scores each answer according to its relevance to the respondent's risk appetite/behavioral bias, with a score of 100 indicating a high risk appetite/behavioral bias and a score of 0 being the lowest, being risk averse. In this Paper, a score for each respondent is calculated as a measure of the respondent's risk appetite/behavioral bias.

Table 3.1 Risk Appetite/Behavioral Bias Scoring Table

Serial number	Question	Answer Options	Explanation of answer options and assignment
1	B2000e Up to now, how many times has your family started a business?	1. 3 times and above (100) 2. 2 times (80) 3. 1 time (60) 4. 0 time (0)	Start a business more than 3 times - may be extremely risk-biased, start a business 0 times - may

			be risk-averse.
2	Does Are there any shares that are not traded on the public market?	1. Yes (100) 2. No (0)	Participating in non-publicly traded equity investments has a higher risk appetite.
3	D3116a Does your family have outstanding debts due to stock purchases?	1. Yes (100) 2. No (0)	Those who borrow money for speculation on stocks may have an extreme appetite for risk.
4	D3116aa What is the main source of money borrowed for stock purchase?	1. No such cases (0) 2. Formal financial institutions such as banks and	Borrowing from informal financial institutions to speculate on stocks has a

		<p>credit cooperatives (50)</p> <p>3. Private financing channels such as relatives and friends, private financial organizations (100)</p> <p>4. Both formal financial institutions and private sources of financing are available (100)</p>	<p>high risk appetite.</p>
5	D3116b How much money is still unpaid?	<p>1. 1 million above(100)</p> <p>2. 500,000 - 1 million (90)</p> <p>3. 200,000 -</p>	<p>A high level of arrears implies a higher risk appetite.</p>

		500,000 (80)	
		4. 100-200,000 (70)	
		5. 50-100,000 (60)	
		6. 20-50,000 (50)	
		7. $0 < X < 20,000$ (40)	
		8. 0 (0)	
6	H3104 If you have a fund for investment, which investment projects would you like to choose most	1. High-risk, high-reward projects (100) 2. Projects with slightly higher risks and higher returns (75) 3. Projects with average risk and average returns (50) 4. Projects with	Investors who prefer high risks and are unwilling to take any risks have a higher extreme risk appetite index.

		<p>slightly lower risks and lower returns (20)</p> <p>5. Unwilling to take any risks (0)</p> <p>6. Don't know (20)</p>	
7	D6100a Value of financial derivatives held	<p>1. 1 million above (100)</p> <p>2. 800,000 - 1 million (90)</p> <p>3. 500,000 - 800,000 (80)</p> <p>4. 200,000 - 500,000 (70)</p> <p>5. 100-200,000 (60)</p> <p>6. 50-100,000 (50)</p> <p>7. $0 < X < 50,000$ (40)</p>	<p>Due to the high risk of financial derivatives investments, there is a high risk of losing money because investors who invest higher amounts in derivatives have a high</p>

		8. None (0)	risk appetite.
8	H3107 Suppose there are two lottery tickets for you to choose, if you choose the first one, you will have a 100% chance of getting 4,000 yuan; if you choose the second one you will have a 50% chance of getting 10,000 yuan and a 50% chance of nothing. Which one would you like to choose?	1. First ticket (0) 2. Second ticket (100)	The expected return of the first lottery ticket is 4,000 yuan with a standard deviation of 0; the expected return of the second lottery ticket is 5,000 yuan with a standard deviation of 5,000 yuan. Those who choose the second ticket have an extreme appetite for

			risk.
9	H3108 suppose there is a game, you have a 50% chance of losing 25 yuan and a 50% chance of getting X yuan. How much do you want X to be at least before you can participate in this game?	1. 37.5 (100) 2. 50 (80) 3. 62.5 (60) 4. 75 (40) 5. Greater than 75 (0)	People who require less returns prefer risk.
10	H3109 Suppose you have a 50% chance of losing 100 yuan and a 50% chance of getting Y yuan. How much do you want Y to be at least before you can participate in this game?	1. 150 (100) 2. 200 (80) 3. 250 (60) 4. 300 (40) 5. Greater than 300 (0)	People who require less returns prefer risk.
11	C7072a In the last year, has your family vehicle been involved in a traffic accident?	1. Yes (100) 2. No (0)	Traffic accidents may be a consequence of high-risk behavior.
12	C7072b What was the total	1. 1 million	High

	amount spent at that time on vehicle damage or personal injury due to the traffic accident?	above (100) 2.800,000 - 1 million (80) 3.500,000 - 800,000 (60) 4.300,000 - 500,000 (40) 5.100-300,000 (30) 6.5-10 万 (20) 6.50-100,000 (20) 7.Under 50,000 (10) 8.No costs incurred (0)	compensation for loss and damage indicate a history of major car accidents and overly aggressive behavioral biass.
13	D3111e What is your family's reason for investing in stocks? (multiple choices possible) 1. High yield 2. Low risk 3. Diversified investment	1.Includes option 3 (0) 2. Excluding 2, 3, including 1 (100) 3. Other cases	If the investment objective is to seek high returns, a high risk

	<p>4. Believe in your own speculative abilities</p> <p>5. Introduction of others</p>	(50)	<p>investment strategy may be adopted.</p>
14	<p>D7109d What is the main basis for your family's choice of financial products? (multiple choices possible)</p> <p>1. Proceeds</p> <p>2. Is the capital guaranteed</p> <p>3. Referrals from relatives and friends</p> <p>4. Web, mobile etc. push</p> <p>5. Consult with professionals or institutions (financial advisors, investment advisors, financial institutions)</p>	<p>1. Includes 2 or 5 (0)</p> <p>2. Other cases (50)</p>	<p>If the investment is made with the aim of preserving capital or if advice has been sought from a professional adviser, then there is a strong sense of risk control.</p>
15	<p>D7113 In addition to the bank deposits, stocks, funds, internet financial products and financial products already mentioned, which of the</p>	<p>1. Include 2 (100)</p> <p>2. Not including 2 but including 3 or 4 (70)</p>	<p>If financial derivatives are invested in, the risk appetite is presumed to</p>

	<p>following financial products does your family hold? (multiple choices possible)</p> <p>1. Bonds</p> <p>2. Derivatives</p> <p>3. Gold (excluding jewellery)</p> <p>4. Non-RMB assets (including foreign fixed assets)</p> <p>7777. Other (please specify)</p> <p>7788. None of them.</p>	<p>3. Other cases (50)</p>	<p>be high.</p>
16	<p>K2101, K2102cit Does your household currently lend money to others and has it not been fully recovered? What is the approximate extent of the uncollected portion of these lending payments?</p>	<p>1. 1 million above (1 million)</p> <p>2.500,000 - 1 million (80)</p> <p>3.200,000 - 500,000 (70)</p> <p>4.100-200,000 (60)</p> <p>5.50-100,000 (50)</p> <p>6.20-50,000 (30)</p>	<p>Lending funds to others at a high level and not yet recovered is a higher risk.</p>

		7.0<X<20,000 (20) 8.0 (0)	
17	K2123, K2124 What is the annual interest rate on this lending?	1.Over 30% (100) 2.20%-30% (90) 3.15%-20% (80) 4.10%-15% (70) 5.8%-10% (50) 6.6%-8% (40) 7.Less than 6% (30) 8.0 (0)	If the interest rate on borrowing is high, it indicates a high appetite for risk with the purpose of lending at usury.

2.1.2 Social networking/information channels X2

Based on the China Household Finance Survey (CHFS), this Paper constructs a scoring table on social networking/information channels by selecting appropriate questions. Based on the findings of the existing literature, as well as the author's interviews with industry insiders and the author's own understanding, each question is assigned a certain score for the answer options.

This Paper tends to argue that people with higher scores are more likely to perform well in social network and have access to high-quality information channels.

As proposed in this paper, social networking and information channels are important ways for people to acquire wealth management knowledge. People will learn financial knowledge from other people in their group, grasp financial information, and imitate investment operations.

But the authors of this Paper speculates that people who have a particularly wide-ranging social networking and a large number of information sources may be misled, leading to information distortion, blindly copying the decisions of others, and failing to make scientific, accurate investment decisions in line with their own circumstances; people who rarely socialize or lack access to information are more likely not to get involved in financial investments or fail due to the lack of necessary information.

This Paper believes that people who have moderate social networking and information channels, and have a higher social level (for example, graduating from a prestigious college with outstanding alumni) are more likely to achieve success in wealth management.

In this Paper, several questions were selected to measure social networking and information channels. The first question was about private borrowing, and studies have shown that the availability of borrowing channels reflects social competence and the scope of access to information, and that if respondents have access to private borrowing, they have relatively adequate information and social channels.

Questions 2 and 3 examined familiarity with computers and the Internet, and it is difficult for people who are not accessed to the Internet to access timely and complete financial investment information. Questions 4-8 examine the ways in which stock investors obtain information and the extent to which they are influenced by other investors. The 9th question examines whether the investor has a financial advisor or investment advisor, which is a more important question of measuring of the level of investment and risk control.

The question 10 was literacy, and if the education level was higher, the presumption was that the social circle was of higher quality. Question 11 looks at whether there is a background in overseas education, and if so, it may have broader access to information.

The question 12 is the type of phone, if you use a smartphone then it is faster and easier to get information. The 13th question is for spending on education. If you spend more, you will have more extensive information channels and generally have a good social network. Question 14 is the amount paid for access to information. If you have paid more, it means that you have broader access to information and and is more likely to get more information.

This Paper sets up a social networking and information channel scoring table with several answers to each of the 14 questions, and scores each answer according to its relevance to the respondent's social networking and information channel, with a score of 100 indicating a very high quality social network and a very broad information channel, and a score of 0 indicating a low quality social network and a very narrow information channel. In this Paper, the score of each respondent is calculated as a measure of the respondent's social networking and

information channels.

Table 3.2 Social Networking and Information Channels Scoring Table

Serial number	Question	Answer Options	Explanation of answer options and assignment
1	B3030 In addition to bank/credit union loans, does your family currently have outstanding private loans with respect to industrial and commercial production and operation?	1. Yes (100) 2. No (0)	People who obtain loans through private channels usually have more intimate connections with social networks.
2	C8001a In which year did your family buy the first desktop or laptop?	1. Before 2000 (100) 2. 2000-2010 (80) 3. After-2010 (40)	The earlier a person buys a computer, the more information channels

			he/she has and the more willing he/she is to try new things.
3	C8001b Have you used the Internet? (If the respondent has been online or used some apps, he/she is deemed to have used the Internet.)	1. Yes (100) 2. No (0)	People using the Internet have a wider range of information sources.
4	D3111d People using the Internet have a wider range of information sources.	1. Very susceptible (20) 2. More susceptible (60) 3. General (80) 4. Less susceptible (60) 5. Not affected at all (20)	People who can communicate with other investors and selectively form their own investment opinions are more able to make full use

			of social networks to obtain high-quality information.
5	<p>D3111f What is the main basis for your family to choose stocks? (Multiple choice)</p> <p>1. Analysis of company fundamentals</p> <p>2. Technical analysis</p> <p>3. Economic hotspot</p> <p>4. Introduction from relatives and friends</p> <p>5. Network, mobile phone feeds, etc.</p> <p>6. Consulting professionals or institutions (financial consultants, investment consultants, financial institutions)</p> <p>7777.Other (please specify)</p>	<p>1. Include any of 1, 2, 6 (100)</p> <p>2. Exclude 1, 2, or 6, and include any of 3, 4, 5 (50)</p>	<p>Investors who conduct analysis of company fundamentals and technical analysis, or consult professional institutions, can obtain high-quality information; investors who watch news and follow hotspots,</p>

			communicate with relatives and friends, and check mobile phone feeds can also obtain useful information.
6	D9109b Do you use any financial management app?	1. Yes (100) 2. No (0)	Whether to pay attention to financial management consulting, and if you have a relevant app, you are more concerned about financial information.
7	H3101 How much attention	1. Very (100)	The level of

	do you usually pay to economic and financial information?	<p>2. Very much (80)</p> <p>3. General (60)</p> <p>4. Little (20)</p> <p>5. None(0)</p>	attention to information affects the respondents' access to information.
8	<p>How do you follow financial news? (Multiple choice)</p> <p>1. Financial APP.</p> <p>2. Internet, mobile phone and other web browsing channels.</p> <p>3. Traditional media such as television and newspapers.</p> <p>4. Financial celebrity lectures, course training or forums, etc.</p> <p>7777. Other (please specify)</p> <p>7788. Never follow</p>	<p>1. 0 channel or never follow (0)</p> <p>2. 1 (20)</p> <p>3. 2 channels (40)</p> <p>4. 3 channels (70)</p> <p>5. 4 channels and above (100)</p>	The number of information sources is examined, and if financial information is obtained from multiple sources, the information sources are abundant.
9	D9109c Does your family have a financial advisor or investment advisor?	<p>1. Yes (100)</p> <p>2. No (0)</p>	A professional advisor helps to provide financial

			<p>management skills, which is an important factor in the success of an investment, and if a financial advisor or investment advisor is available, this Paper considers the respondents' access to information to be of high quality.</p>
10	A2012 What is your education level?	<ol style="list-style-type: none"> 1. Doctoral degree (100) 2. Master's 	<p>A high level of education is likely to result</p>

		<p>degree (70)</p> <p>3. Undergraduate (50)</p> <p>4. Junior college/higher vocational college (30)</p> <p>5. High school (20)</p> <p>6. Primary or lower secondary school (10)</p> <p>7. Never educate (0)</p>	<p>in a higher quality of one's social circle, and the alumni circle in particular can play an important social role over a long period of time, which can be of great benefit to one's work, life, and lifelong learning.</p>
11	A2012a Did you obtain your degree abroad?	<p>1. Yes (100)</p> <p>2. No (0)</p>	<p>An overseas educational background helps a lot</p>

			<p>with one's perspective and information channels, and the shortage of an international perspective and global social network is a big regret.</p>
12	G1009a What kind of phone are you currently using?	<p>1. Smartphones (100)</p> <p>2. Non-smartphones (50)</p> <p>3. No mobile phone (0)</p>	<p>Smartphones are easier to access information and are not conducive to socializing and accessing information if you can't use</p>

			the internet or various apps smoothly and easily.
13	G1016 How much money did your family spend on education and training last year?	1. Over 500,000 (100) 2. 300,000 - 500,000 (80) 3. 200-300,000 (60) 4. 100-200,000 (50) 5. 50-100,000 (30) 6. 30-50,000 (20) 7. 10-30,000 (10) 8. Under 10,000 (0)	People who value education are likely to have wider access to information and are more likely to have a higher social circle.
14	G1009 On average, how much did your family pay for telephone, cell phone, cable TV, and Internet access each	1. Over 20,000 yuan (100) 2. 10-20,000 yuan (100)	The higher the fee paid for access to information,

	month last year?	3. 5,000 - 10,000 yuan (100)	the more access to information is likely to be available.
		4. 3000-5000 yuan (100)	
		5. 2000-3000 yuan (100)	
		6. 1000-2000 yuan (80)	
		7. 500-1000 yuan (50)	
		8. Under 500 yuan (20)	

2.1.3. Consumption habits/consumption concept X3

Based on the China Household Finance Survey (CHFS), this Paper constructs a scoring table on consumption habits/consumption concept by selecting appropriate questions. Based on the research results of existing literature, as well as interviews with industry insiders and the author's own understanding in this Paper, a scoring table on whether consumption is luxury consumption and whether consumption matches one's actual situation is made according to one's income level or asset status for each type of consumption, and a certain score is assigned to the answer options for each question, with higher scores indicating that consumption exceeds one's economic conditions.

The question 1 for scoring table for this Paper asks which valuable consumer

and collectible assets are owned, and this Paper judges assets based on their value; yachts and private jets are extremely expensive and owned by only a very small number of wealthy families and individuals, and this Paper gives the highest luxury indicator to those who own such assets. There is a current consumption philosophy of spending in advance and spending beyond one's means, and with the popularity of credit cards and the rise of various financial technology companies, it is easier to spend in advance. The question 2 examines whether the purchase of luxury goods leads to arrears, and this Paper considers borrowing to purchase expensive consumer goods as excessive consumption. Questions 3-5 examine the ratio of spending on luxury goods, cars and travel to the level of personal income, and if the ratio is too high, excessive spending is presumed.

Questions 6-8 looked at whether or not they used credit cards and whether or not they used installments, and if the respondents used credit card installments regularly, this entailed a higher interest cost, so this group was an overspender. Question 9 looked at the share of personal income spent on beauty and if the share was high, it was considered luxury spending.

Questions 10-13 examine car ownership and use, with a person who is not wealthy presumed to be a luxury consumer if he owns multiple cars, or a large displacement car, and irrational consumer if he arrives with a high amount of money owed for the purchase of a car. Question 14 looked at the acquisition of durable goods (multiple-use, long-lived items such as TVs, refrigerators, computers, etc.), which also implies overspending if these expenditures are a high proportion of income.

Questions 15-16 look at the consumption of tobacco and alcohol, which are both harmful to health and costly, and are among the most damaging consumption that should be minimized or avoided. Questions 17-19 looked at consumption of overseas products, online shopping and clothing purchases, which are also considered luxury consumption if they represent a high proportion of consumption compared to one's income level. Question 20 examines spending on home renovations and repairs, which are a way to improve the quality of life, but are considered luxury spending if they exceed one's financial means.

This Paper sets up a consumption habits/consumption concept scoring table with several answers to each of the 20 questions, and scores each answer according to its relevance to the respondents' consumption habits/consumption concept, with a score of 100 indicating that the consumption concept are ahead of the curve and often engage in extravagant consumption or consumption beyond their economic conditions, and a score of 0 indicating that they are very frugal. In this Paper, the score of each respondent is calculated as a measure of the respondent's consumption habits/consumption concept.

Table 3.3 Consumption Habits/Consumption concept Scoring Table

Serial number	Quesitons	Answer Options	Explanation of answer options and assignment
1	C8004 In addition to the assets mentioned in the questionnaire,	1. Include option 1 1	Valuable assets,

	<p>which of the following assets does your family own? (Multiple choice)</p> <ol style="list-style-type: none"> 1. Cruise/private jet 2. Antiques 3. Rare animals and plants 4. Precious stamps/calligraphy/artwork 5. Gold and silver, jewelry, etc. 7777. Others (such as high-end leather bags, cosmetics, high-grade clothing, high-grade bags and suitcases, watches, etc.) 7788. None of the above [Jump to C8005a] 	<p>(100)</p> <ol style="list-style-type: none"> 2. Exclude option 1 and include three or more options (70) 3. Include two options (50) 4. Include an option (20) 5. 7788 (0) 	<p>especially cruise ships/private jets, belong to typical luxury consumption</p>
2	<p>C8006 Does your family have outstanding debts due to the purchase of these assets (luxury goods)?</p>	<ol style="list-style-type: none"> 1. Yes (100) 2. No (0) 	<p>Measure whether there is overspending, with money owed for luxury goods</p>

			is generally an act of overspending.
3	C8005a/ A3136it Last year, what percentage of after-tax income did your family spend on luxury goods?	<p>1. Above 100 per cent (100)</p> <p>2. 50-100% (80)</p> <p>3. 20-50% (60)</p> <p>4.0<X<20% (20)</p> <p>4.0<X<20% (20)</p> <p>8.0 (0)</p>	<p>Whether consumption matches one's own ability, and if it exceeds one's income by a certain percentage, it is consumption beyond one's financial means.</p>
4	C7086/ A3136it The ratio of the planned price of the car purchase to the annual income	<p>1. 500% or more (100)</p> <p>2. 300-500% (80)</p> <p>3. 200-300% (50)</p>	<p>Whether consumption matches one's ability, and if the car purchased is</p>

		4. 100-200% (40) 5. Below 100% (0)	too expensive, it indicates overspending.
5	G1018/A3136it Proportion of total tourism expenditure in annual income last year	1. More than 100 per cent (100) 2. 80-100% (80) 3. 50-80% (50) 4. 30-50% (40) 5. 20-30% (30) 6. 10%-20% (20) 7. 5-10% (10) 8. 0 (0)	Whether the consumption matches one's ability, travel is generally considered a non-essential consumption.
6	E2002 Do you use a credit card?	1. Yes (100) 2. No (0)	Using a credit card means that you are

			likely to overspend.
7	Has E2002ac In the past year, did you use a credit card for installment payments?	1. Yes (100) 2. No (0)	Installments have high interest rates and often mean overspending.
8	E2002c What is the total amount of installments?	1. Over 200,000 (100) 2. 150-200,000 (80) 3. 100,000 - 150,000 (60) 4. 50-100,000 (40) 5. 10 - 50,000 (20) 6. Under 10,000 (10)	The higher the amount of installments, the higher the degree of overspending represented.
9	G1006a*12/A3136it In the past year, what's your ratio of total spending on beauty to annual	1. More than 50% (100) 2. 40%-50%	Spending on beauty is luxury

	income?	(90) 3. 30%-40% (80) 4. 20%-30% (70) 5. 15%-20% (60) 6. 10%-15% (50) 7. 8%-10% (40) 8. 6%-8%(30) 9. 4%-6%(20) 10. 1%-4% (10) 11. Less than 1% (0)	spending if it is a high proportion of one's income.
10	C7002, B2003dit How many family car does your family own?	1.If total family assets are less than 15 million yuan and you	For the rich, the number of cars they own is the expression of

		<p>own 4 cars and more (100)</p> <p>2. If total family assets are under 15 million yuan and you own 3 cars (80)</p> <p>3. If total family assets are under 15 million yuan and own 2 cars (40)</p> <p>4. If total family assets are less than 15 million yuan and you own 1 car (10)</p> <p>5. If total family assets</p>	<p>their enjoyment and pleasure of life, but a person who is not rich owns more than one car, he may really like cars, but it is very likely that he is "playing with things" and belongs to the luxury consumption.</p>
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		<p>are under 15 million yuan and there are no cars (0)</p> <p>6. If total family assets are 15 million yuan or more, regardless of how many cars there are (0)</p>	
11	<p>C7060, C7060it/A3136it What is the ratio of arrears to annual income due to purchase of a family car?</p>	<p>1. Over 200% (100)</p> <p>2. 100%-200% (80)</p> <p>3. 50%-100% (60)</p> <p>4. 20%-50% (40)</p> <p>5. 5%-20% (20)</p> <p>6. 0-5% (0)</p>	<p>Car finance is now commonly used in car spending, but if you owe too much, you may be spending extravagantly beyond your</p>

			conditions.
12	C7004c, B2003dit What's the displacement of this car is?	<p>1. If the total family assets are less than 5 million yuan and the car has a displacement of 4L or more (100)</p> <p>2. If total family assets are less than 5 million yuan and displacement is 2.5-4.0L (80)</p> <p>3. If total family assets are less than 5 million yuan and</p>	<p>Similarly, the acquisition of large displacement cars by people who are not rich is likely to be luxury spending.</p>

		<p>displacement</p> <p>is 1.6-2.5L</p> <p>(40)</p> <p>4. If total family assets are less than 5 million yuan and displacement is less than 1.6L (10)</p> <p>5. If total family assets are 5 million yuan or more, regardless of any displacement (10)</p> <p>5. No cars (0)</p>	
13	C7014a, B2003dit Does your family currently have	1. With arrears (100)	Paying for a car in arrears

	outstanding debts (including loans and borrowings) from the purchase of this vehicle?	2. No arrears (0)	means that you may be overspending.
14	C8002a, C8002ait/A3136it Last year, what's the ratio of spending on durable goods to annual income?	1. Over 200% (100) 2. 100%-200% (80) 3. 50%-100% (60) 4. 20%-50% (40) 5. 5%-20% (20) 6. 0-5% (0)	Spending on durable goods (items that are used many times and have a long lifespan, such as TVs, refrigerators, computers, etc.). If they are expensive, it also implies overspending.
15	G1002a*12/A3136it In the past year, what's the ratio of smoking expenditure to annual income?	1. More than 50% (100) 2. 40%-50% (80) 3. 30%-40% (60)	Smoking is harmful to health and expensive, and is a consumption

		<p>4. 20%-30% (40)</p> <p>5. 10%-20% (30)</p> <p>6. 5-10 per cent or less (20)</p> <p>7. Less than 5% (0)</p>	<p>choice that should be reduced until it is quited on both health and economic levels.</p>
16	<p>G1002b*12/A3136it In the past year, what's the ratio of alcoholic beverages purchased to annual income?</p>	<p>1. More than 50% (100)</p> <p>2. 40%-50% (80)</p> <p>3. 30%-40% (60)</p> <p>4. 20%-30% (40)</p> <p>5. 10%-20% (30)</p> <p>6. 5%-10% (20)</p> <p>6. 5-10 per</p>	<p>Alcohol is also harmful to health and such consumption should be reduced until it is quited.</p>

		cent or less (20) 7. Less than 5% (0)	
17	G102/A3136it In the past year, what's the ratio of goods purchased abroad or spent outside the country to annual income?	1. More than 100 per cent (100) 2. 50%-100% (80) 3. 30%-50% (60) 4. 20%-30% (40) 5. 10%-20% (20) 6. Less than 10% (0)	A high proportion of one's income is spent on foreign goods, implying luxury consumption.
18	G1023d/A3136it In the past year, what's the ratio of online shopping expenditure to annual income?	1. More than 100 percent (100) 2. 50%-100% (80)	Spending too much on online purchases means luxury

		<p>3. 30%-50% (60)</p> <p>4. 20%-30% (40)</p> <p>5. 10%-20% (20)</p> <p>6. Less than 10% (0)</p>	<p>spending.</p>
19	<p>G1011/A3136it In the past, What's the ratio of clothing purchases to annual income?</p>	<p>1. More than 100% (100)</p> <p>1. More than 100 per cent (100)</p> <p>2. 50%-100% (80)</p> <p>3. 30%-50% (60)</p> <p>4. 20%-30% (40)</p> <p>5. 10%-20% (20)</p> <p>6. Less than</p>	<p>Buying clothes that do not match your income level implies luxury spending.</p>

		10% (0)	
20	G1012/A3136it In the past year, what was the ratio of spending on home improvements and repairs to annual income for your family?	1. More than 200% (100) 1. Over 200% (100) 2. 100%-200% (80) 3. 50%-100% (60) 4. 20%-50% (40) 5. 5%-20% (20) 6. 0-5% (0)	Renovating your home is a way to enhance your quality of life, but it is a luxury purchase if you exceed your financial condition.

2.1.4 Growth environment X4

Based on the China Household Finance Survey (CHFS), this Paper constructs a scoring table on the growth environment by selecting appropriate questions. Based on the research results of the existing literature, as well as interviews with industry insiders and the author's own understanding, this Paper focuses on the respondents' birthplace, family environment, and parental influence, and compiles a scoring table on the personal growth environment, assigning a certain score to the answer options of each question, with higher scores indicating that the growth environment is conducive to the individual's

development in business.

This paper will use the following indicators to construct a growth environment and family structure scoring table: The first question examines whether the target has grown in regions with a unique entrepreneurial culture in China, such as Wenzhou City in Zhejiang Province, Jinjiang City in Fujian Province, and Guangdong Province. If the individuals have grown up in above regions, it is speculated that they may be deeply influenced by entrepreneurial and investment culture and are more likely to engage in business operations and to achieve entrepreneurial success.

The question 2 is gender, based on a survey of founders of China's top 500 companies, the percentage of men is higher, it is speculated that man is more likely to start a business in China at this stage. Of course this does not mean sexism and men are better than women, women can be equally successful in business, the assignment here is just to make a distinction.

The question 3 is parental occupation. Children are more likely to enjoy superior living and learning conditions if their parents are in jobs of high social status, such as civil servants or professionals. Questions 4-5 examine the number of family members, and based on existing research, it is speculated that too many family member makes respondents more likely to start a business.

The question 6 measures the impact of household registrations on wealth. The urban-rural difference was once the biggest difference in China for a long time. This paper believes that China's urban-rural dual structure has led to a large gap between urban and rural residents' income, asset scale, and investment methods. Children who are grown in urban are more likely to receive a good education

and more likely to achieve business success, but of course things may have changed with the rapid development of rural China in recent years. This Paper attempts to explore the impact of such difference on financial business.

The question 7 examines the educational level of parents. Parents with higher education background generally know more about finance and investment, which has a positive guiding significance for the cultivation of their children's FQ.

Question 8 examines whether there are loans related to education. A key point in Jewish financial education is to cultivate the concept of delayed enjoyment among children. The existence of education loans indicates that the family may be poor, but on the other hand, families who prefer to borrow money to support their children's education attach greater importance to education, and this concept of delayed enjoyment will also affect children's FQ.

The question 9 is the period of birth, children who are born after the reform and opening up generally have substantially improved living conditions and have better living and educational conditions. The question 10 examined the nature of the respondent's household registrations, and if the hukou was a rural to non-rural hukou, i.e., once belonged to a rural hukou and later changed to an urban hukou, it indicates that the child was likely born and raised in a rural area and that living and educational conditions were inferior to those of urban children.

The question 11 examines parents' politics status; parents who are members of the party are more likely to be members of the "civil service system", enjoy authority and have access to better material conditions, and their children are more likely to have good living and educational conditions. Parents who are

members of the Democratic Party are more likely to be professionals with higher degrees and their children are more likely to have a good education. The question 12 is the highest position of the parents, and those with higher executive positions tend to offer their children with better living condition and make them better educate. They are more likely to achieve business success. For a long time, Chinese farmers are at the bottom of the social ladder, and children growing up in rural areas have poor educational conditions.

The question 13 checks whether you have your own home. Having your own home is more conducive to growth. Question 14 examines whether gifts were received from people other than relatives, and if so, this indicates that more people care about the child's development. Question 15 examines the location of the respondent's house; children who grow up in large urban areas have better education and are likely to have a broader business perspective.

This Paper sets up a growth environment scoring table with several answers to each of the 15 questions, and scores each answer according to its relevance to the respondents' growth environment, with a score of 100 indicating a growth environment that is very conducive to engaging in business activities and a good entrepreneurial climate, and a score of 0 indicating an environment that is not conducive to the individual achieving business success. This Paper calculates a score for each respondent as a measure of the environment in which the respondent grew up.

Table 3.4 Growth Environment Scoring Table

Serial	Question	Answer Options	Explanation of
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number			answer options and assignment
1	Which province/city/county is your registered permanent residence in?	1. Wenzhou city, Zhejiang Province (100) 2. Jinjiang City, Fujian Province (100) 3. Guangdong Province (60) 4. Other (0)	Wenzhou City in Zhejiang Province and Jinjiang City in Fujian Province are both well-known business cities with a strong entrepreneurial atmosphere, and Guangdong Province is also among the regions with a strong entrepreneurial atmosphere,

			and people growing up in these regions have a more entrepreneurial spirit.
2	A1113 Gender	<p>1. Men (100)</p> <p>2. Female (0)</p>	<p>According to a survey of founders of China's top 500 companies, men have a higher percentage. It is speculated that men are more likely to start a business in China at this stage. Of course this does not mean</p>

			sexism and men are better than women, women can be equally successful in business, the assignment here is just to make a distinction.
3	A3111 Parental occupation	<p>1. Persons in charge of Party organs, state organs, groups and social organizations, enterprises and institutions (100)</p> <p>2. Professional and technical personnel (80)</p>	<p>In the current era in China, children whose parents are civil servants or technicians are more likely to enjoy superior living and learning conditions.</p>

		<p>3. Office staff and related personnel (60)</p> <p>4. Social production service and life service staff (40)</p> <p>5. Agriculture, forestry, animal husbandry, fishery production and support personnel (20)</p> <p>6. Manufacturing and related personnel (40)</p> <p>7. Soldier (50)</p> <p>8. Other practitioners (40)</p>	
4	A2000a, A2000b, A1111 How many members are	1. More than 10 (100)	According to the available

	there in your family besides you?	<p>2. $8 \leq X < 10$ (80)</p> <p>3. $6 \leq X < 8$ (60)</p> <p>4. $4 \leq X < 6$ (40)</p> <p>5. 3 (20)</p> <p>6. 2 (10)</p> <p>7. 1 (5)</p> <p>8. 0 (0)</p>	literature, the larger the family size, the more entrepreneurial the child is likely to be.
5	A2028, A2029 How many brothers and sisters do you have?	<p>1. 5 and above (100)</p> <p>2. 4 (80)</p> <p>3. 3 (50)</p> <p>4. 2 (40)</p> <p>5. 1 (20)</p> <p>6. 0 (0)</p>	Again, this reflects the impact of family size on growth.
6	A2022 Type of registered permanent residence	<p>1. Agriculture (20)</p> <p>2. Non-agricultural (100)</p> <p>3. Unified household registration (100)</p>	The urban-rural dichotomy has a greater impact on personal growth, with children raised in cities more

			likely to receive a good education and achieve business success.
7	A2032 What is the education level of your father/mother?	1. Never went to school (0) 2. Elementary school (20) 3. Junior high school (40) 4. Senior high school (60) 5. Technical secondary school/vocational high school (60) 6. Junior college/higher vocational college (70)	The more educated the parents are, the better financial guidance they may be able to implement for their children.

		<p>7. Undergraduate (80)</p> <p>8. Master's degree (100)</p> <p>9. Doctoral degree (100)</p>	
8	E1001 Currently, does your family have outstanding bank loans due to the education of family member(s)?	<p>1. Yes (100)</p> <p>2. No (50)</p>	<p>Arrears indicate that the family suffers poor economic conditions, but they would rather borrow money to support the education of their children, indicating that the family values education.</p>
9	A2005 Year of birth?	1. Pre-1950 (20)	Children who

		<p>2. 1950-1960 (30)</p> <p>3. 1960-1970 (40)</p> <p>4. 1970-1980 (50)</p> <p>5. 1980-1990 (60)</p> <p>6. 1990-2000 (80)</p> <p>7. 2000 onwards (100)</p>	<p>are born after the reform and opening up generally had substantially better living conditions and better access to life and education.</p>
10	<p>A2022a Is it an agriculture to Non-agricultural household?</p>	<p>1. Yes (0)</p> <p>2. No (100)</p>	<p>The conversion of an agriculture to non-agricultural household means that one is likely to have grown up in a rural area with inferior living and educational</p>

			conditions to urban children.
11	A2033 What is the political status of the father/mother?	<p>1. Communist Youth League members (30)</p> <p>2. Communist Party members (100)</p> <p>3. Democratic or other parties (100)</p> <p>4. Crowd (0)</p>	<p>Party members are more likely to be members of the "civil service system" and children are more likely to have access to good living conditions.</p>
12	A2035c What is the father's/mother's highest position at work?	<p>1. General staff (20)</p> <p>2. Lead of unit department (e.g. manager) (50)</p> <p>3. Head of unit (e.g. General Manager) (80)</p> <p>4.(Deputy) Team/Unit</p>	<p>In contemporary China, the children of those in higher executive positions tend to have better condition and receive better</p>

		<p>Leader (60)</p> <p>5.(Deputy) Chief of Section (70)</p> <p>6.(Deputy) Director (80)</p> <p>7.(Deputy) Director and above (100)</p> <p>8. Village officials (60)</p> <p>9. Communal officials (70)</p> <p>10. Farmers (0)</p> <p>7777. Other (please specify) (10)</p> <p>7788. Did not work (0)</p>	<p>education and are and more likely to achieve business success.</p>
13	C2001 Does your household have its own home?	<p>1. Yes (100)</p> <p>2. No (0)</p>	<p>Having your own home is more conducive to</p>

			growth.
14	H1001, H1002 In the last year, did your family receive more than 100 yuan in cash or non-cash income from non-household members? Is it obtained from a relative?	1. Received from relatives yes (100) 2. Not received from relatives (0)	Having received a gift from a relative shows that more people care about their children's development.
15	Where is the house of the interviewed household located?	1. Large urban areas (100) 2. Suburbs of large cities (60) 3. Large towns (50) 4. Small towns (20) 5. Rural/rural (0)	Children growing up in large urban areas are better educated and may have a broader business perspective.

2.1.5. Financial literacy X5

Based on the China Household Financial Survey (CHFS), this Paper constructs a scoring table on FQ by selecting appropriate questions. Based on the research results of existing literature, as well as interviews with industry insiders and the

author's own understanding, this Paper mainly focuses on the respondents' financial knowledge and understanding of financial practices, and compiles a scoring table on personal financial literacy, assigning a certain score to the answer options of each question, with higher scores indicating that the individual has good financial literacy.

This paper believes that financial literacy plays a key role in an individual's long-term financial success. Indicators such as educational background and mastery of financial knowledge can be used to measure the level of financial literacy. This paper prepares a scoring table based on this. The question 1 examines the level of education, and it is speculated that the higher the degree of education, the higher the level of mastery in financial knowledge. The question 2 is financial basics. The question 3 and 4 are simple financial calculations. The question 5-8 also examines the level of mastery of basic knowledge of financial products.

This Paper sets up a growth environment scoring table with several answers to each of the eight questions and scores respondents' financial literacy based on each answer, with a score of 100 indicating that the individual has a good financial literacy and a score of 0 indicating a lack of financial literacy and poor financial literacy. This Paper calculates a score for each respondent as a measure of the respondent's financial literacy.

Table 3.5 Financial Literacy Scoring Table

Serial number	Question	Answer Options	Explanation of answer options
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			and assignment
1	a2012 Education level?	1. Never went to school (0) 2. Elementary school (20) 3. Junior high school (40) 4. Senior high school (60) 5. Technical secondary school/vocational high school (60) 6. Junior college/higher vocational college (70) 7. Undergraduate (80) 8. Master's degree (100) 9. Doctoral	The higher the degree of education, the higher the level of mastery in financial knowledge.

		degree (100)	
2	H3103 High-yield projects are usually accompanied by high risks. Do you think this statement is correct?	1. Yes (100) 2. No (0)	Financial Basics.
3	H3105 Assuming that the bank's annual interest rate is 4%, if 100 yuan is put for 1-year fixed deposit, what will be the principal and interest obtained after 1 year?	1. 104 (100) 2. Other answers (0)	Calculation of financial basics
4	H3106 Assuming that the bank's annual interest rate is 5% and the inflation rate is 3% per year, what can be bought after depositing 100 yuan in the bank for one year will	1. be more than that a year ago (100) 2. Other (0)	Financial Fundamentals Calculation Questions.
5	H3111 In general, which do you think is riskier, stock or fund?	1. Stocks (100) 2. Other (0)	Examine the knowledge of financial products

6	H3112 In general, which do you think is riskier, main board stock or GEM stock?	1. Other (0) 2. GEM (100)	Examine the knowledge of financial products
7	H3113 In general, which do you think is riskier, partial equity fund or partial debt fund?	1. Equity-biased funds (100) 2. Other answers (0)	Examine the knowledge of financial products
8	H3114 In general, which one do you think is riskier, national bond or corporate bond?	1. Other answers (0) 2. Corporate bonds (100)	Examine the knowledge of financial products

1.3. Explained variables

It is believed that financial quotient can be measured by selecting relevant indicators. This Paper selects ROI (Z1), risk control ability (Z2), sense of security and happiness (Z3) to construct FQ proxy indicators, scores these three indicators separately, and then uses principal component analysis to extract the public factor, namely PFQ Y.

3.1.1. Roi Z1

Investment ability is a vital element to measure financial quotient, and ROI is an important indicator to measure personal investment ability. According to interviews and research in this paper and existing literature studies, ROI is not

only related to financial literacy, but also to risk appetite, information channels, consumption concepts and growth environment.

In this paper, the profit and loss ratio of stock investment, the profit and loss ratio of fund investment and the return rate of financial products are selected as secondary indicators to measure the ROI. This paper believes that the above three indicators can reflect the situation of personal investment income more comprehensively.

This Paper sets up a ROI scoring table with several answers to each of the 3 questions and scores respondents' ROI based on each answer, with a score of 100 indicating a high individual ROI and a score of 0 indicating a low ROI. In this Paper, the score for each respondent is calculated as a measure of the respondent's ROI.

Table 3.6 ROI Scoring Table

Serial number	Question	Answer Options	Explanation of answer options assignment
1	D3118 What about your family's profit and loss ratio of stock investment last year?	1. Greater than 30% loss (0) 2. 30% loss to 20% loss (10) 3. 20% loss to	Measure the return on stock investment which reflects the ability to invest in risky

		<p>10% loss (20)</p> <p>4. 10% loss to 0 (30)</p> <p>5. Break-even (50)</p> <p>6. 0 to 10% profit (60)</p> <p>7. 10% to 20% profit (70)</p> <p>8. 20% to 30% profit (80)</p> <p>9. Profit is greater than 30% (100)</p>	markets
2	D5109a Last year, in which of the following ranges did your family's investment funds have a profit/loss ratio?	<p>1. Losses greater than 30% (0)</p> <p>2. Loss of 30% to loss of 20% (10)</p>	The fund investment is generally less risky than stock investment.

		<p>3. Loss of 20% to loss of 10% (20)</p> <p>4. Losses 10% to 0 (30)</p> <p>5. Break-even (50)</p> <p>6. Profit 0 to 10% (60)</p> <p>7. Profit 10% to 20% (70)</p> <p>8. Profit 20% to 30% (80)</p> <p>9. Profit greater than 30% (100)</p>	<p>This indicator measures the investment capacity of higher risk products</p>
3	D7112/D7110a Yield of financial management products (income/market value)	<p>1. Loss (0)</p> <p>2. Break-even (0)</p> <p>3. 0 to 5% profit (40)</p> <p>4. 5% to 10%</p>	<p>Wealth management products are generally low-to-medium risky, with a</p>

		profit (60)	rate of return
		5. 10% to	lower than that
		15% profit	of medium-to-
		(80)	high risky
		6. Greater	financial
		than 15%	products, but
		profit (100)	investors with
			strong
			investment
			capabilities can
			still obtain
			higher returns.

3.1.2. Risk control capacity Z2

Risk control ability is more important to a certain extent than simply pursuing investment returns. Investors who invest too heavily in medium-to-high-risk financial products are quite likely to suffer loss in the medium to long term, even if they may earn a higher return for a certain period of time (such as buying a big bull stock). People who lack insurance awareness often ignore risks. If an individual purchases a relatively complete commercial insurance, it means that he/she has strong risk control awareness and ability.

In this Paper, the degree of investment diversification and whether to purchase insurance are selected as secondary indicators to measure the ability to control risk of the tested individuals.

In this Paper, we set up a scoring table for ability to control risk with several answers to each of the 2 questions, and score respondents' ability to control risk according to each answer, with a score of 100 indicating that the individual has high ability to control risk and a score of 0 indicating that the respondent lacks ability to control risk. In this Paper, the score of each respondent is calculated as a measure of the respondent's ability to control risk.

Table 3.7 Risk Control Ability Scoring Table

Serial number	Question	Answer Options	Explanation of answer options and assignment
1	Do D3105b, D3113, D5102, D7109, D7113 Have you bought stocks, funds, wealth management products, bonds, financial derivatives, gold (excluding jewelry), non-RMB assets?	1. 5 or more kinds (100) 2. 4 kinds (80) 3. 3 kinds (80) 4. 2 kinds (40) 5. 1 kind (20) 6. None (0)	Investment diversification (eggs are not placed in one basket) can reflect risk control ability
2	F6001a Which of the following commercial insurances have you bought? Including commercial insurance purchased overseas. (Multiple	1. 3 kinds (100) 2. 2 kinds (80) 3. 1 kind (40) 4. None (0)	People with stronger insurance awareness are more likely to

	choice)		control risks
	1. Commercial life insurance		
	2. Commercial health insurance		
	3. Other commercial insurance		
	7788. None of them.		

3.1.3. Sense of security and happiness Z3

The sense of security is what people seek for psychological stability and security, primarily manifested as a sense of certainty and control. Happiness refers to a range of subjective human emotions of delight and pleasure based on the satisfaction of one's own claims and desires. This Paper argues that sense of security and happiness are important indicators of FQ.

This Paper defines the sense of security and happiness as important indicators for measuring financial quotient. It is considered here that the amount of wealth gained from investment, entrepreneurship, and work is often not the most important factor for constructing PFQ. If an individual is extremely eager for money, it is difficult for him/her to obtain satisfaction even if he/she has a good income. Instead, he/she will raise the goal, and be more eager for high income, thus losing the normal mind and even engaging in illegal and criminal behavior to obtain money.

Of course, the sense of security and happiness are not a castle in the air, and it is difficult to have a stable life and experience happiness without basic material protection. The sense of security and happiness are the unity of subjective feelings and objective material conditions.

An individual with a stable and peaceful mind who can treat wealth correctly is more likely to have a sense of security and happiness, and accordingly have a higher FQ. This paper chooses some questions to measure the sense of security and happiness:

The question 1 is physical condition, which is related to many factors, but a good body often means physical and mental health. The question 2 examines whether the house has an independent kitchen and bathroom. This question allows this paper to understand a person's living state. A person with limited living conditions and a poor living environment may feel less happy than those with better conditions.

The question 3 examines whether some subsidies are obtained from the government. 2020 is the final year for building a moderately well-off society in an all-round way and winning the battle against poverty. China is on the verge of lifting all the rural poor population out of poverty, but for individuals, due to various reasons, there is still possibility of returning to poverty. It is difficult for poor families to feel the happiness brought about by a prosperous life. This paper judges the individual's living conditions based on whether they receive government subsidies.

The question 4 examines the trust of people who do not know each other, and those who extremely lack of sense of security may be less happy.

The question 5 is a subjective indicator that directly asks about the degree of individual happiness. Of course everyone's definition of happiness is different and the question may be subject to some error, but it is still a very important assessment question, if the respondent considers himself or herself happy, this

Paper presumes that the respondent has a high level of security and happiness.

The questions 6-8 examine whether debts are owed due to production, house buying, and stocks. Debts generally make people feel anxious. The Question 9 examines whether an individual is looking for a job recently; job searches can be stressful for individuals and may lead to anxiety.

Questions 10-12 examines respondents' consumption. It is speculated that they have a greater sense of security and happiness if they spent more on a variety of beneficial physical and mental health aspects.

The question 13 asked if the respondent was a poor household, and if so, It is speculated that there is a shortage of sense of security and happiness.

In this Paper, we set up a sense of security and happiness scoring table with several answers to each of the 13 questions and score respondents' risk control according to each answer, with a score of 100 indicating that the respondent had a strong sense of security and happiness and a score of 0 indicating that the respondent lacked a sense of security and happiness. In this Paper, a score for each respondent is calculated as a measure of the respondent's sense of security and happiness.

Table 3.8 Sense of Security and Happiness Scoring Table

Serial number	Questions	Answer Options	Explanation of answer options and assignment
1	A2025b How is your current	1. Very good	Physical and

	health compared to that of your peers?	(100) 2. Good (100) 3. So so (70) 4. Not good (30) 5. Very bad (0)	mental health is an important factor for a happy life
2	C2005a Does this house have a separate kitchen and bathroom? (multiple choices possible) 1. With separate kitchen 2. With private bathroom 7788. None of them.	1. Include 1, 2 (100) 2. Only include one of 1, 2 (50) 3. 7788 (0)	Poor living environment, not easy to feel the joy of life
3	H2001a Which of the following subsidies/allowances did your family receive from the government last year? (Multiple choice) 1. Not obtained [Skip to H2003] 2. Subsidies for destitute households	1. Obtain 5 and above of 2, 4, 5, 6, 7, 9 (0) 2. Obtain 3-4 of 2, 4, 5, 6, 7, 9 (20) 3. Obtain 1-2 of 2, 4, 5, 6, 7, 9 (40)	Poverty is a major cause of unhappiness, and it is difficult for a poor person to have sense of security and happiness

	<p>3. Bonus for only child</p> <p>4. Subsidies for households enjoying the five guarantees</p> <p>5. Pension</p> <p>6. Relief and disaster relief funds</p> <p>7. Food subsidy</p> <p>8. Return farmland to forest or grassland</p> <p>9. Subsistence allowance</p> <p>10. Education subsidy</p> <p>11. Housing assistance</p> <p>7777. Other (please specify)</p>	4. Other (100)	
4	H3380 How much do you trust people you don't know?	<p>1. Very trust (100)</p> <p>2. Relatively trust (80)</p> <p>3. So so (60)</p> <p>4. Not very trust (40)</p> <p>5. Very distrustful (20)</p>	<p>People who lack trust in others tend to be insecure.</p>

5	H3514 Overall, do you feel happy now?	1. Very happy (100) 2. Happy (80) 3. So so (60) 4. Unhappy (20) 5. Very unhappy (0)	Happiness is a subjective feeling and is a very important indicator of sense of security and happiness.
6	B3001 Currently, does your family have outstanding bank/credit union loans due to [industrial and commercial] production and business activities?	1. Yes (0) 2. No (100)	The arrears incurred by production and operation can make people anxious
7	C2024, C3001, C3015a Currently, how financially can your family repay your housing debt?	1. No problem or arrears at all (100) 2. Basically no problem (60) 3. Hard to repay (20) 4. Completely	Mortgage loans are a common source of anxiety nowadays

		unable to repay (0)	
8	D3116a, D3116aa Does your family have outstanding debts due to stock purchases? What is the main source?	1. No (100) 2. Yes, from formal financial institutions such as banks and credit cooperatives (50) 3. Yes, from private financing channels such as relatives and friends, private financial organizations (30) 4. Yes, from private	The arrears of investment impose a lot of pressure on people, and liquidation or insolvency is a very severe crisis.

		channels and formal financial institutions (0)	
9	A3151 Have you looked for a job in the past month?	1. Yes (0) 2. No (100)	Being looking for a job indicates a state of unemployment or being very dissatisfied with your job and is a major cause of anxiety.
10	G1006a On average, what was the total amount your household spent on beauty in one month last year? Beauty expenses here include cosmetic surgery, buying skin care products, cosmetics, beauty	1. 0(0) 2. 0-10(30) 3. 10-100(60) 4. 100-500(80) 5. >500(100)	Beauty is one of the most important ways to enjoy life.

	care and Spa		
11	G1010 Last year, how much did your family spend on books, newspapers, magazines, CD-ROMs, movie tickets, bars, Internet cafes, pets, playgrounds and toys, art equipment, sporting goods and other cultural and entertainment expenditures?	1. 0(0) 2. 0-30(30) 3. 30-100(60) 4. 100-500(80) 5. >500(100)	Engaging in cultural recreation helps prompt a sense of satisfaction with life.
12	G1020it Last year, in which of the following ranges did your household spend on health and fitness?	1. 0(0) 2. 0-100(30) 3. 100-1000(60) 4. 1000-2000(80) 5. >2000(100)	Health, fitness, and help prompt a sense of satisfaction with life.
13	H3510] Is your household a poor household?	1. Yes (100) 2. No (0)	It is difficult for poor households to have a sense of security and

			happiness.
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Chapter IV Empirical Test

1.1. Descriptive statistics

To explore the correlation between FQ and personal characteristics such as risk appetite/behavioral bias (X1), social networking/information channels (X2), consumption habits/consumption concept (X3), growth environment (X4) and financial literacy (X5), this Paper sets Z_{i1} , Z_{i2} and Z_{i3} to be the standardized ROI indicator, ability to control risk indicator, and security and happiness indicator respectively. This Paper estimates the latent factor Y_i i.e., PFQ by the following factor model.

The significance, symbol and absolute value of the regression coefficients $\gamma_1 \sim \gamma_5$ are followed to verify whether they support the following hypothesis:

- (1) Given X2-X5, the more risk-averse a person is, the lower the FQ index tends to be.
- (2) Given X1, X3-X5, people with wider social networking and higher quality of access to information, the higher FQ index tends to be.
- (3) Given X1, X2, X4, X5, the more people consume beyond their condition, the lower the FQ index tends to be.
- (4) Given X1-X3 and X5, people who grow up in a growth environment where the business environment and entrepreneurial atmosphere are more influential, the higher FQ index tends to be.
- (5) Given X1-X4, the higher people have financial literacy, the higher the FQ index tends to be.

FQ Y is defined as the first principal component of Z1-Z3 in Section 1.1.2 of Chapter 3. In order to eliminate the influence of unit difference and order of magnitude, the variables Z1-Z3 are standardized first, after which a principal component analysis is carried out. The variance of the three principal components is shown in the figure below, in which the first principal component Y explains 48.47 percent of the variation, while the second and third principal components explain 31.35 percent and 20.18 percent of the variation respectively.

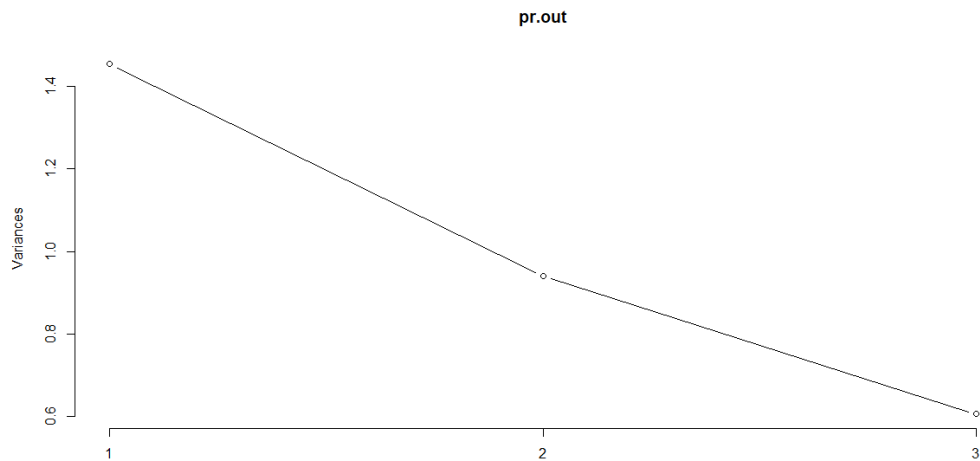


Figure 4.1 Variance on the three principal components

The linear relationship between FQ Y and Z1-Z3 is as follows:

$$Y = 0.6718Z_1 + 0.6543Z_2 + 0.3472Z_3 \quad \text{Formula 4.1}$$

4.1

The correlation coefficients of Y and Z1-Z3 are 0.81, 0.79 and 0.42, respectively.

It can be seen that the explanatory variables X1-X5 take values that are sufficiently variable among the 40011 individuals and have mean values concentrated between 30 and 60. For example, the variable X5 has a range of

values between 0 and 100, with a moderate mean of 50.96 and median of 60.00, because this Paper takes full account of the range and mean of inter-individual variation in scores when assigning scores to the questions under each variable.

Table 4.1 Results of Descriptive Statistics for the Explained and Explanatory Variables

Variable	Average Value	Median	Standard Deviation	Minimum Value	Maximum Value
Y (after standardization)	0.0000	-0.2776	1.2366	-2.8977	10.6991
X1	51.95	53.64	4.8222	30.00	100.00
X2	31.36	31.11	12.7228	6.00	80.00
X3	47.14	48.75	9.3296	13.75	96.92
X4	48.26	48.75	13.0687	13.64	87.78
X5	50.96	60.00	28.1036	0.00	100.00

2.1 Regression results

This Paper develops the following multiple linear regression model

$$Y_i = \gamma_0 + \gamma_1 X_{1i} + \gamma_2 X_{2i} + \gamma_3 X_{3i} + \gamma_4 X_{4i} + \gamma_5 X_{5i} + \epsilon_i \quad \text{Formula 4.2}$$

Least squares regression of the explained variable Y on the explanatory variables X1-X5 yields the following regression results.

$$\hat{Y}_1 = -1.7853 - 0.0037X_{1i} + 0.0311X_{2i} + 0.0006X_{3i} + 0.0163X_{4i} + 0.0033X_{5i}$$

Formula 4.3

s.e.(N-W) (0.0688) (0.0013) (0.0006) (0.0003) (0.0005) (0.0002)

t-value(N-W) (-25.93) (-2.81) (49.50) (1.92) (35.09) (15.84)

The second line shows the Newey-West standard deviation, and the third line the value t calculated using the Newey-West standard deviation.

The results show that the coefficients of X1, X2, X4, and X5 are significantly not equal to zero at the 0.05 level of significance, while the coefficient of X3 is not very significant, i.e., the author of this Paper has reason to reject the H_{01} , H_{02} , H_{04} , and H_{05} , but cannot find sufficient evidence from the available data to reject H_{03} . In addition, the signs of the coefficients of X1, X2, X4 and X5 are consistent with the hypothesis of this Paper, and the sign of X3 is inconsistent with the hypothesis.

Specifically, the data from the regression analysis in this Paper show that.

(1) Given constant X2-X5, when the risk appetite/behavioral bias score X1 increases one unit, the FQ index will significantly decrease 0.0037 units.

(2) Given constant X1, X3-X5, when social network/information channel score X2 increases one unit, the FQ index will significantly increase 0.0311 units.

(3) Given constant X1, X2, X4 and X5, when consumption habits/consumption concept score X3 increases one unit, the FQ index will significantly increase 0.0006 units, relatively insignificant. In this regard, some studies argue that the result shown by the T value does not necessarily mean it is not significant, and

there remains a large space for debate. This Paper holds that it is a problem yet to be further studied and discussed. It is thought-provoking. More emphasis will be put on the research about the relationship between Consumption Habits/Consumption Concepts and FQ index in future research; other scholars are welcome to join us.

(4) Given constant X1-X3 and X5, when growth environment score increases one unit, the FQ index will significantly increase 0.0163 units.

(5) Given constant X1-X4, when financial literacy increases one unit, the FQ index will significantly increase 0.0033 units.

Chapter V Explanation of Results of the Empirical Tests

1.1. Significant relationship between risk appetite/behavioral bias and FQ index

According to the results of the above regression analysis in this Paper, given constant X2-X5, when risk appetite/behavioral bias score X1 increases one unit, the FQ index will significantly decrease 0.0037 units. That is, the hypothesis (1) proposed in this Paper is verified: given X2-X5, the more risk-averse a person is, the lower the FQ index tends to be.

Risk appetite is the attitude of actively seeking risk and preferring volatility of returns over stability of returns. Risk-averse investors choose assets based on the principle that when the expected return is the same, choose the riskier one because it will give them greater benefits.

The authors of this Paper argue that there are differences in the attitudes of different actors towards risk, and that some may like the excitement of big gains and big losses, tends to care less about risk, or have a higher tolerance for risk (at least he thinks so himself), then he is willing to take a certain probability of risky losses in pursuit of a higher possibility of gain (which may be money, wealth, social status or spiritual enjoyment). Others may prefer to "stable" and are more concerned with "low risk" and are not willing to pay more loss for the possibility of higher returns.

This Paper classifies investor into risk avoiders, risk seekers and risk neutrals based on their preferences for risk. The empirical study in this Paper finds that the risk appetites/behavioral bias of different actors are significantly related to

their FQ.

First, investor's risk appetites largely determine investment decisions and are closely related to investment success or failure. A number of studies have verified the role of risk appetites and behavioral bias in influencing asset allocation behavior; in general, those who prefer higher risks are more willing to invest in riskier financial products, while risk-averse individuals prefer to pursue financial products with lower, but more stable returns.

In short, in contrast to risk avoiders, risk seekers usually actively pursue risk, preferring the volatility of returns over the stability of returns. They choose assets based on the principle that when the expected returns are the same, they choose the riskier one because they predict it will give them greater utility.

Second, people who adopt risk-taking behaviour are less susceptible to risk. From the perspective of willingness and ability to control risk, risk-averse people tend to be blindly confident, ignore risks in financial markets and other areas, easily misinterpret information, rely on unsupported sources of information, tend to increase unnecessary trading behaviour or overly complex asset allocation behaviour, lack prudent and effective risk control measures and "safety cushions". Therefore, it will create a large risk exposure, easily lead to excessive losses and will not compensate for when risks occur.

What's more, risk seekers are more likely to bear greater psychological stress, social pressure, and may be prone to emotions such as fear, anger and impulsiveness. Such emotional fluctuation may have adverse effects on work and life, and is not conducive to creating a safe, smooth atmosphere and difficult to achieve happiness.

The results of the empirical study in this Paper found that there is a significant relationship between risk appetite/behavioral bias and FQ, with actors who prefer higher risk having relatively lower FQ index.

2.1. Significant relationship between social networking/information channels and FQ index

According to the results of the above regression analysis in this Paper, given constant X1, X3-X5, when social networking/information channel score X2 increases one unit, the FQ index will significantly increase 0.0311 units. That is, the hypothesis (2) proposed in this Paper is verified: given X1, X3-X5, people with wider social networking and higher quality of access to information tend to have higher FQ index.

Sociological studies have shown that individuals with similar lifestyles, values and cultural perceptions usually have more contact and interaction with each other, which can lead to the formation of social interaction circles. A social circle is an organization or group of people with the same social attributes and strong social ties within a region or field.

In the course of modern social development, new social circles are constantly differentiated to accommodate a more refined social division of labour and collaboration. Based on the strong or weak connection relationship of information channels, people exchange views and communicate their emotions anytime and anywhere, which is easy to form a social circle of online and offline interaction, and conducive to social consensus and promotes the process of social modernization.

This Paper argues that social networking and information channels have a

significant role in influencing individuals' investment decisions, asset allocation and risk control. The phenomenon of many people to act in accordance with the prevailing principle and norms in the group is particularly evident in investment behavior. The shared cultural imprinting and friendships make other alumni imitate alumni's stock trading choices. In addition, there is also a significant positive effect of higher quality and broader social circles and information channels on boosting wealth.

Good communicators are more likely to establish and maintain a wide range of interpersonal relationships with others and are more likely to be successful in interpersonal interactions. Maintaining a high level of concentration and rapport when communicating helps you understand the other person's mental state and be better able to regulate your communication process based on feedback, and also helps you improve your career and live a happy life.

The results of the empirical study in this Paper found that there is a significant relationship between social networking/information channels and FQ index, with those who have wider social networking and higher quality of access to information tending to have higher FQ index.

3.1. No significant relationship between consumption habits/consumption concept and FQ index

According to the results of the above regression analysis in this Paper, given constant X1, X2, X4, and X5, when consumption habits/consumption concept score X3 increase one unit, the FQ index will increase 0.0006 units, which is relatively not significant. That is, the hypothesis (3) proposed in this Paper has not been fully verified: given constant X1, X2, X4 and X5, people who consume

beyond their own conditions tend to have lower FQ index.

Established studies have suggested that consumption has become an important way of manifesting one's social status and lifestyle, that the symbolic value of commodities has granted consumption a social performance and social communication function. The prevalence of consumerism has made consumption less about the satisfaction of actual needs and more about the constant pursuit of the satisfaction of manufactured and stimulated desires.

Regarding the relationship between consumption and FQ, it is argued that consumers consider their personal and household income expectations in their consumption decisions and have to weigh and choose between current and future consumption, thus consumption is an important reflection of FQ.

However, there is much debate about the specific impact of consumption habits and consumption concept on FQ. Some scholars argue that people who prefer high consumption are more likely to struggle to obtain wealth in the future and are therefore more likely to acquire more wealth.

Other scholars suggested that people who consume beyond their financial level are more likely to engage in risky financial investments and are therefore vulnerable to losses. Therefore, they are weaker in risk control.

In general, regarding the relationship between Consumption Habits/Consumption Concepts and FQ index, there exists major controversy and no fully convincing conclusions have been drawn. Practically, arguments also exist in the society and the business circle. Various viewpoints can be demonstrated with typical events and cases, but there is an absence of authoritative and convincing statistical evidence.

This Paper conducts innovative and exploratory research on the relationship between Consumption Habits/Consumption Concepts and FQ index, which is of great theoretical and practical value. It enriches the study of FQ theory, but also leaves questions to be further explored. It is precisely where the value, significance and highlight of FQ research lies.

From the results of the empirical research in this Paper, it can be seen that there is no significant relationship between Consumption Habits/Consumption Concepts and FQ index, which are related to some extent however. This Paper argues that the impact of consumption habits and consumption concept on individuals' asset allocation decisions and risk control is complex. Based on the research results of scholars, it is impossible to conclude that there is a significant correlation between them. In the future, the author will further study and discuss this issue. Scholars and business people are welcome to join in.

4.1 Significant relationship between growth environment and FQ index

According to the results of the above regression analysis in this Paper, given constant X1, X2, X3, and X5, when the growth environment score X4 will increase one unit, the FQ index will significantly increase 0.0163 units. That is, the hypothesis (4) proposed in this Paper is verified: Given constant X1, X3 and X5, people who develop in an environment feature deep business and entrepreneurial atmosphere tend to have a higher FQ index.

Much has been explored about the impact of an individual's growth environment on FQ, resulting in several valuable findings in academic studies. The prevailing academic view is that growth environment has a strong influence on FQ, that parental influence and the family and community in which one grows up have

a significant impact on one's development, and that those who grow up with an exposure to business are more likely to achieve business success.

In addition, the presence or absence of a major disaster can also affect an individual's ability to invest.

This Paper verifies the above views that parents' occupation and experience and wealth status have a very important role in influencing children's growth environment, that there is an equally influential role of the child's geographical location in the development of business awareness and entrepreneurial ideas, and that family size also influences children's economic behavior decisions. Overall, there is a significant relationship between growth environment and FQ scores, with those who grow up in better environments being more likely to be successful in business, more likely to be better at controlling risk and more likely to have sense of security and happiness.

5.1 Significant relationship between financial literacy and FQ index

According to the results of the above regression analysis in this Paper, given constant X1, X2, X3, and X4, when the FQ score X5 will increase one unit, the FQ index will significantly increase 0.0033 units. That is, the hypothesis (5) proposed in this Paper is verified: given X1-X4, people with higher FQ tend to have higher FQ index.

Theoretical and practical studies have shown that financial literacy and FQ have a significant impact on an individual's asset allocation choices, and that the degree of financial knowledge and investment experience has a direct impact on whether an individual's assets will be invested in the financial markets and on specific investment decisions. Increased financial literacy also helps with

risk control, enabling more beneficial choices and stronger risk control tools when faced with risk.

From the opposite perspective, as most investors lack the necessary financial knowledge, they are vulnerable to damage caused by illegal financial activities and are easily confused by high-risk financial products, or they may not get involved in any financial activities and are unable to benefit from the financial markets. In the long run, by not participating in financial investments at all, individuals and households are likely to experience a real loss of purchasing power due to higher inflation, making it difficult to benefit from macroeconomic growth.

Chapter VI Construction of Another PFQ Index

Based on the results of the empirical tests of the five hypotheses in this Paper, this Paper tests hypothesis one, hypothesis two, hypothesis four and hypothesis five. This Paper proposes that the degree of risk appetite/behavioral bias is significantly negatively related to the FQ index, and social networking/information channels, favorable growth environment, and level of financial literacy are significantly and positively related to the FQ index.

Based on the above studies, this Paper proposes another indicator formula for constructing FQ.

$$\text{FQ index} = \text{Risk appetite/Behavioral bias Score} + \text{Social Networking/Information Channel Score} + \text{Growth Environment Score} + \text{Financial Literacy Score}.$$

In this Paper, we will construct scoring table for four factors: risk appetite/behavioral bias, social networking/information channels, growth environment and Financial Literacy. The scoring table will be based on the list of questions from the China Household Finance Survey (CHFS), and the author has also interviewed industry professionals, practitioners and others to construct the scoring table.

Since the authors of this Paper have verified through theoretical and empirical studies that there is a significant correlation between the four variables of risk appetite/behavioral bias, social network/information channel, growth environment and financial literacy and FQ index, this scoring table is highly scientific and reasonable. The authors of this Paper would like to invite people from all walks of life to test their own FQ index using the scoring table

constructed in this Paper, and the results obtained can be an important and scientific reference indicator of their own FQ level.

At the same time, the authors of this Paper also hope that the FQ index constructed in this Paper can be used in commercial or public welfare FQ tests and FQ education in the future, so as to make some contribution to improving the FQ level of the whole society, and also hope that the test-takers can establish a good knowledge of their own FQ level to guide their investment and business decisions and business behaviors, so that they can obtain a higher rate of return on investment, improve their own or their company's business operation performance, and be able to control risks, avoid major risk events and avoid losses while achieving performance and returns.

The very important goal of improving FQ is to enhance the level of happiness in one's life. Currently, insecurity plagues the globe and society as a whole, and people are crying for living in a safe, stable and prosperous environment where they can experience material and spiritual fulfillment. The author of this article hopes that through the assessment of the FQ index, each person can recognize his or her strengths and energy, find his or her shortcomings, and be able to target his or her strengths and make up for his or her shortcomings, so that he or she can feel safe, stable, and content, and his or her family and friends can share his or her happiness, and also contribute beneficially to the safety and prosperity of society. Therefore, he or she can be a force enhancing the safety and prosperity of society.

1.1 FQ index factor scoring table: risk appetite/behavioral bias

In this Paper, a set of scoring table is set up for risk appetites/behavioral bias,

listing a total of ten questions, each with a number of options for the test taker to choose from, and then a total score is summarized based on the options they choose. Ten questions were scored out of 100, with a minimum score of 0. This Paper tends to consider such a test taker to be risk averse if his/her scores are above 50, and risk lover if below 50.

Table 6.1 FQ Index Factor Scoring Table: Risk Appetite/Behavioral Bias

Serial number	Question	Answer Options
1	Number of business start-ups	1. 0-1 (10) 2. 2 (5) 3. 3 (2) 4. More than 3 times (1)
2	Whether to involve in equity investments	1. No (10) 2. Yes (5)
3	Whether to involve in financial derivatives	1. No (10) 2. Yes (2)
4	Amount of equity financing transactions	1. 0 (10) 2. 0-10,000 (6) 3. 10-50,000 (4) 4. 50-100,000 (2) 5. Over 100,000 (0)

5	Borrowing routes for equity financing transactions	1. None (10) 2. Financial institutions such as securities firms (6) 3. Relatives, friends (4) 4. Usury (0)
6	Which type of investment is preferred	1. Low risk, low return (10) 2. Medium risk medium return (5) 3. High risk and high reward (0)
7	Preferring the familiar to the new	1. Yes (10) 2. No particular preference (5) 3. No (0)
8	My friends think I'm a thrill seeker.	1. No (10) 2. No apparent judgement (5) 3. Yes (0)
9	I like to challenge authority.	1. No (10) 2. No apparent

		judgement (5) 3. Yes (0)
10	I have a very curious mind.	1. No (10) 2. No apparent judgement (5) 3. Yes (0)

2.1. FQ index factor scoring table: social networking/information channels

This Paper sets up a set of scoring sheets for social networking/information channels, listing a total of ten questions, each with several options for the test-taker to choose from, and then total score is summarized based on the options they chose. Ten questions were scored out of 100, with a minimum score of 0. If the test taker scores higher than 50, then this Paper tends to consider such a test taker to have a higher quality and broader social network and more accessible information channels, and to be a higher quality social person, while if the score is lower than 50, then this Paper tends to consider such a test taker to be in a lower level and quality of social network and relatively narrower information channels.

Table 6.2 FQ index factor scoring table: social networking/information channels

Serial number	Questions	Answer Options
1	My education level	1. Doctor degree (10)

		<p>2. Master's degree (7)</p> <p>3. Undergraduate (5)</p> <p>4. Junior college/higher vocational college (3)</p> <p>5. High School (2)</p> <p>6. Primary or lower secondary school (1)</p> <p>7. Never went to school (0)</p>
2	Was the degree earned abroad?	<p>1. Yes (10)</p> <p>2. No (5)</p>
3	What kind of phone is currently in use	<p>1. Smartphones (10)</p> <p>2. Non-smartphones (5)</p> <p>3. No cell phone (0)</p>
4	Last year, how much was spent on education and training in total	<p>1. Over 500,000 (10)</p> <p>2. 300,000 - 500,000 (8)</p> <p>3. 200,000-300,000 (6)</p> <p>4. 100-200,000 (5)</p> <p>5. 50-100,000 (3)</p> <p>6. 30-50,000 (2)</p>

		7. 10-30,000 (1) 8. Under 10,000 (0)
5	Number of trips (including business trips and travel) in the last year	1. More than 10 (ten) 2. 5-10 times (6) 3. 1-5 times (30) 4. 0 (0)
6	Monthly communication costs	1. Over 10,000 yuan (10) 2. 5,000 - 10,000 yuan (6) 3. 1000-5000 yuan (5) 4. 500-1000 yuan (4) 5. 200-500 yuan (3) 6. Under 200 yuan (1) 7. 0 (0)
7	Number of reunions such as reunions, hometown associations, and comradeship associations attended in the past 5 years	1. More than 10 (ten) 2. 5-10 times (6) 3. 1-5 times (3) 4. 0 (0)
8	How much attention do you usually pay to information on the economy and finance?	1. Very (10) 2. Very much (8) 3. General (6)

		4. Little (2) 5. Never (0)
9	Is there a financial advisor or investment advisor?	1. Yes (10) 2. No (0)
10	Which channel is used to follow financial news? (multiple choices possible) 1. Financial APP. 2. Internet, mobile and other web browsing. 3. Traditional media such as television and newspapers. 4. Attendance at lectures, course training or forums of financial luminaries, etc. 5. other 6. Never	1. 0 items or never (0) 2. 1 (20) 3. 2 (40) 4. 3 (70) 5. 4 and above (100)

3.1. FQ index factor scoring table: growth environment

This Paper sets up a set of scoring tables for the growth environment, listing a total of ten questions, each with several options for the test taker to choose from, and then the total score is summarized based on the options they chose. Ten questions were scored out of 100, with a minimum score of 0. If the test taker scores above 50, then this Paper tends to assume that such a test taker is in a growth environment adapted to the development of FQ, and if below 50, then this Paper tends to assume that such a test taker is in a growth environment that is not adapted to the development of FQ.

Table 6.3 FQ index Factor Scoring table: Growth Environment

Serial number	Questions	Answer Options
1	Does it grow in the following geographic areas	1. Wenzhou, Zhejiang Province (10) 2. Jinjiang City, Fujian Province (10) 3. Guangdong Province (8) 4. Tier 1 cities (7) 5. Second-tier cities, other coastal cities (4) 6. Other (0)
2	Households type	1. Urban households (10) 2. Rural households (0)
3	Father's highest level of education	1. Doctor degree (10) 2. Master's degree (7) 3. Undergraduate (5) 4. Junior college/higher vocational college (3) 5. High School (2)

		<p>6. Primary or lower secondary school (1)</p> <p>7. Never went to school (0)</p>
4	Mother's highest level of education	<p>1. Doctor degree (10)</p> <p>2. Master's degree (7)</p> <p>3. Undergraduate (5)</p> <p>4. Junior college/higher vocational college (3)</p> <p>5. High School (2)</p> <p>6. Primary or lower secondary school (1)</p> <p>7. Never went to school (0)</p>
5	Father's occupation	<p>1. Heads of Party organs, State organs, groups and social organizations, enterprises and institutions (10)</p> <p>2. Professional and technical staff (8)</p>

		<p>3. Non-lead office staff (6)</p> <p>4. Solider (6)</p> <p>5. Agricultural, forestry, livestock and fishery production and support staff (3)</p> <p>6. Manufacturing and related personnel (3)</p> <p>7. Other practitioners (3)</p>
6	Mother's occupation	<p>1. Heads of Party organs, State organs, groups and social organizations, enterprises and institutions (10)</p> <p>2. Professional and technical staff (8)</p> <p>3. Non-lead office staff (6)</p> <p>4. Solider (6)</p>

		<p>5. Agricultural, forestry, livestock and fishery production and support staff (3)</p> <p>6. Manufacturing and related personnel (3)</p> <p>7. Other practitioners (3)</p>
7	As a child, did the family own the home	<p>1. Yes (10)</p> <p>2. No (0)</p>
8	What type of place did you grow up living in	<p>1. Large urban areas (10)</p> <p>2. Suburbs of large cities (6)</p> <p>3. Large towns (5)</p> <p>4. Small towns (2)</p> <p>5. Rural/rural (1)</p>
9	Are there any siblings	<p>1. Yes (10)</p> <p>2. 没有 (0)</p> <p>2. No (0)</p>
10	Did you receive gift gifts from friends and family as a child	<p>1. Regularly obtained (10)</p>

		2. Occasionally acquired (5) 3. Never obtained (0)
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4.1. FQ index factor scoring table: financial literacy

This Paper sets up a set of scoring sheets for financial literacy, listing a total of ten questions, each with several options for the test taker to choose from, and then total score is summarized based on the options they chose. Ten questions were scored out of 100, with a minimum score of 0. If the test taker scores higher than 50, then this Paper tends to believe that such a test taker has a high level of financial literacy, has the basic knowledge to make financial investments and is a qualified investor, if it is lower than 50, then this Paper tends to believe that such a test taker has a weak financial literacy, lacks basic financial knowledge, lacks the necessary ability to control risk and measures and is not suitable to participate in professional financial investments.

Table 6.4 FQ index Factor Scoring table: Financial Literacy

Serial number	Questions	Answer Options
1	Major studied at university	1. Business, Economics (10) 2. Other disciplines (5) 3. Did not attend university (0)

2	Whether they have worked in professional finance, economic management	<p>1. 5+ years of experience in finance, economics (10)</p> <p>2. Up to 5 years of experience in finance and economics (6)</p> <p>3. Work experience related to finance (4)</p> <p>4. No relevant work experience (0)</p>
3	Experience with personal financial investments, money management	<p>1. 10+ years of investment experience in equities, funds, financial derivatives (10)</p> <p>2. Less than 10 years of experience in investing in equities, funds, financial derivatives (7)</p> <p>3. Experience in buying bank financial and</p>

		insurance products (5) 4. No relevant experience (0)
4	Do you follow finance, economic news and knowledge	1. Very (10) 2. Very much (7) 3. Occasional (4) 4. No (0)
5	Which do you think is riskier in general, stocks or bonds?	1. Stocks (10) 2. Bonds (0)
6	Which do you think is more risky in general, main board stocks or GEM stocks?	1. GEM stocks (10) 2. Main board stocks (0)
7	Which do you think is riskier in general, government bonds or corporate bonds?	1. Corporate bonds (10) 2. Government bonds (0)
8	Do you think it is correct to say that high-yield projects are usually accompanied by high risk?	1. Yes (10) 2. No (0)
9	Assuming the bank's interest rate is 4% per annum, if 100 yuan is deposited for a 1-year fixed term, the principal and interest earned after 1 year will be?	1. 104 (10) 2. 140 (0) 3. 102 (0) 4. 100 (0) 5. Other answers (0)

10	Assuming that the bank's interest rate (simple interest) is 4% per annum, if 100 yuan is deposited for a fixed term of 3 years, the principal and interest earned after 3 years will be the same as the principal and interest calculated at 4% per annum (compound interest).	1. No (10) 2. Yes (0) 3. Don't know (0)
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5.1 Further considerations on the two FQ indexes

This Paper proposes two FQ indexes.

5.1.1 Review of the first FQ index

Regarding the first FQ index, three results-oriented FQ proxy indicators are proposed on the basis of existing research results and interviews and discussions with experts in academia, business and education and people around us, namely ROI Z1, risk control ability Z2, sense of security and satisfaction Z3. FQ Y is defined as the first principal component of Z1-Z3 in this Paper. In order to eliminate the influence of unit difference and order of magnitude, the variables Z1-Z3 are standardized first, after which a principal component analysis is carried out.

FQ Y is defined as the first principal component of Z1-Z3 in Section 1.1.2 of Chapter 3. In order to eliminate the influence of unit difference and order of magnitude, the variables Z1-Z3 are standardized first, after which a principal component analysis is carried out. The variance of the three principal components is shown in the figure below, in which the first principal component Y explains 48.47 percent of the variation, while the second and third principal

components explain 31.35 percent and 20.18 percent of the variation respectively.

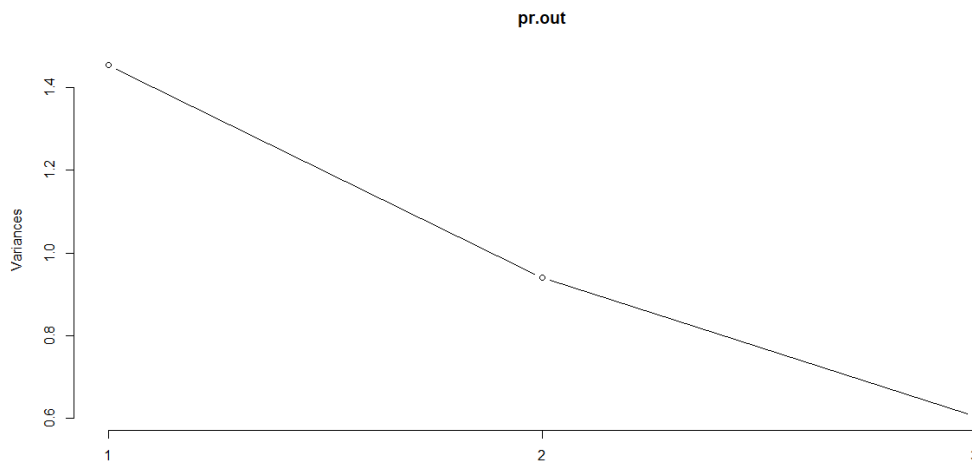


Figure 6.1 Variance on the three principal components

The linear relationship between FQ Y and Z1-Z3 is as follows:

$$Y = 0.6718Z_1 + 0.6543Z_2 + 0.3472Z_3 \quad \text{Formula 6.1}$$

6.1

That is the first FQ index.

5.1.2 Review of the second FQ index

With respect to the second FQ index, this Paper, based on the existing theoretical and empirical research, assumes the influencing factors of PFQ, and explores the correlation between FQ and influencing factors. The influencing factors include Risk Appetite/Behavior Bias (X1), Social Networking/Information Channel (X2), Consumption Habits/Consumption Concepts (X3), Growth Environment (X4), and Financial Literacy (X5). This Paper utilizes CHFS database as the research sample for regression analysis to verify whether each hypothesis is valid, and obtain the correlation between each

impact factor and FQ.

The multiple linear regression model is built as follows.

$$Y_i = \gamma_0 + \gamma_1 X_{1i} + \gamma_2 X_{2i} + \gamma_3 X_{3i} + \gamma_4 X_{4i} + \gamma_5 X_{5i} + \epsilon_i \quad \text{Formula}$$

6.2

The explained variable Y is used for the least square regression of explanatory variables X1-X5, and the regression results are obtained as below:

$$\hat{Y}_1 = -1.7853 - 0.0037X_{1i} + 0.0311X_{2i} + 0.0006X_{3i} + 0.0163X_{4i} + 0.0033X_{5i}$$

Formula 6.3

s.e.(N-W) (0.0688) (0.0013) (0.0006) (0.0003) (0.0005) (0.0002)

t-value(N-W) (-25.93) (-2.81) (49.50) (1.92) (35.09) (15.84)

The second line shows the Newey-West standard deviation, and the third line the value t calculated using the Newey-West standard deviation.

The above is about the second FQ index.

5.1.3 Preliminary analysis of the differences between the two FQ indexes

This Paper attempts to analyze the differences between the two FQ indexes as well as their respective characteristics and highlights.

(1) In general, the first FQ index is relatively objective. It relies on quantitative analysis, especially the ROI and risk control ability. With several relatively objective judgment standards, it is less affected by subjective factors. The second FQ index is relatively subjective and relies on qualitative analysis; it is more affected by subjective factors.

(2) The first FQ index is result-oriented, and is verified on the premise of observing the results. The second FQ index is process-oriented; the score is based on influencing factors when the result is uncertain.

(3) The first FQ index is more straightforward; for example, ROI is clear and less controversial. The second FQ index is more indirect and difficult to observe directly.

(4) The first FQ index involves a relatively small amount of data; for example, ROI is mainly judged based on the answers to several questions. The second FQ index involves a larger amount of data, with more judgment factors to be expanded.

The two FQ indexes provide a broader and more valuable observation angle for FQ through different dimensions. This Paper believes that the differences between the two FQ indexes need to be further explored. After separate tests on the subjects on a large scale, more test results are needed, on this basis of which the differences and highlights of various FQ indexes are further discussed, so as to improve the FQ index and optimize and promote FQ education.

Therefore, the research on the FQ index will continue to be expanded. The author of this paper will continue to pay attention to and promote relevant studies, and other scholars are welcome to join the FQ research and education.

Chapter VII Conclusion

The world has experienced decades of relatively high economic growth and profound changes in society. IQ and EQ are no longer sufficient to paint a full picture of a person; FQ has an important role in influencing success and happiness in life and is becoming increasingly important, and has become a topic of growing concern in business, education and society worldwide.

However, the reality is that the state of FQ and the level of financial education of the general public are not satisfactory and have become unmatched by the current level of socio-economic development, causing massive economic losses to society and losses of wealth and mental distress to individuals.

The level of academic research on FQ is also relatively low. Existing studies do not paint a comprehensive and accurate picture of FQ, nor have they systematically studied the influence factors of FQ and the degree of influence of each factor. Therefore, there is a large gap between research and practice.

This Paper hopes to reveal the main influencing factors affecting FQ and understand the relationship between them and FQ from both theoretical and empirical research perspectives. Based on industry interviews, research, and study of existing literature, this Paper selects the five most likely influencing factors from a wide range of FQ influencing factors: personal risk appetite/behavioral bias, social networking/information channels, consumption habits/consumption concept, growth environment and financial literacy.

This Paper provides a comprehensive review of existing research and describes the theoretical foundations on FQ. In the empirical part, using the questionnaire and data from the China Household Finance Survey (CHFS), the Paper

constructs a scoring table for each explanatory and explained variable, conducts an empirical study and draws the following conclusions: there is a significant negative relationship between risk appetite/behavior preference and FQ index; there is a significant positive relationship between social network/information channel and FQ index; there is no significant relationship between consumption habit/consumption perception and FQ; there is a significant positive relationship between growth environment and FQ index; and there is a significant positive relationship between financial literacy and FQ index.

According to above theoretical and empirical research results, this Paper provides two FQ indexes, and also hopes to provide a set of scientific and reasonable FQ evaluation criteria for the test subjects, which will be applied to FQ education practice in the future to promote the development of FQ assessment and education, and provide scientific guidance for individuals to enhance their FQ and improve their sense of security and happiness.

Regarding the follow-up research, the author believes that there remains much valuable work to be done.

For example, the differences between the two FQ indexes are worthy of in-depth study. Certainly, it is also necessary to apply the two FQ indexes in practice to test a larger group of people, obtain feedback, and make improvements, thus providing more theoretical and empirical basis for subsequent studies.

Besides, further empirical tests based on panel data are needed, which will add more scientific value to the valuable research in this Paper.

Regarding the influencing factors of FQ, the author also raises some questions to be further studied. For example, with respect to the impact of social networks

and information channels on FQ, new research is primarily focused on the impact of alumni network on professional investors' return on investment. This Paper believes that future research directions can be further expanded, and the impact of ethnic group/community on FQ is a good research topic. In addition, the growth environment is also a hot topic at present. What is the impact of growing up in a family with an entrepreneurial atmosphere on PFQ? This may be a quite valuable topic for research. The impact of growing up in a city with strong commercial atmosphere on PFQ is also a topic yet to be probed into. This author looks forward to working with scholars and professional to deepen the research on FQ.

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Appendix A Regression Results of Z1, Z2, and Z3 on X1-X5 Respectively

In order to obtain richer conclusions and insights, the regression results of Z1, Z2, and Z3 on X1-X5 respectively, are reported below.

(1) Results of multiple linear regression of the explained variable Z1 on the explanatory variables X1-X5.

$$\widehat{Z}_{1i} = -106.7993 - 0.0845X_{1i} + 0.2234X_{2i} + 0.0036X_{3i} + 0.1160X_{4i} + 0.0217X_{5i}$$

Formula: Appendix A 1

t-value(N-W) (-167.82) (-7.10) (36.00) (1.13) (23.30)
(10.32)

It is shown that at the significance level of 0.05, the coefficients of X2-X4 are all significant, while the coefficients of X1 and X5 are not significant.

(2) Results of multiple linear regression of the explained variable Z2 on the explanatory variables X1-X5

$$\widehat{Z}_{2i} = 12.2594 + 0.0167X_{1i} + 0.1337X_{2i} + 0.0154X_{3i} + 0.0689X_{4i} + 0.0001X_{5i}$$

Formula: Appendix A 2

t-value(N-W) (20.01) (1.42) (26.90) (7.17) (20.03) (-0.04)

It is shown that at the significance level of 0.05, the coefficients of X2-X4 are all significant, while the coefficients of X1 and X5 are not significant.

(3) Results of multiple linear regression of the explained variable Z3 on the explanatory variables X1-X5

$$\widehat{Z}_{3i} = 37.7238 - 0.0059X_{1i} + 0.2880X_{2i} - 0.0290X_{3i} + 0.1554X_{4i} + 0.0746X_{5i}$$

Formula: Appendix A 3

t-value(N-W) (66.38) (-0.57) (57.12) (-10.97) (36.72) (33.24)

It is shown that at the significance level of 0.05, the coefficients of X2-X5 are all significant, while the coefficient of X1 is not significant.