

## THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND HOUSEHOLD DEBT

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### Abstract

This paper examines the association between personality traits and household debt. For personality traits, I use the big five inventory, that includes five factors: extraversion, openness to experience, conscientiousness, neuroticism, and agreeableness. Household debt is considered under two categories, that are mortgage debt and non-mortgage debt. I use the data from the Survey of Health, Ageing and Retirement in Europe, and my dataset consists of older people, who are aged 50 or above, from 12 European countries. I use probit and tobit regressions to analyze how these big five personality traits affects mortgage and non-mortgage debt. Empirical results show that, among all five traits, the only one influencing mortgage debt holding is extraversion. It is found that extravert people are more likely to have mortgage debt and they have higher conditional amounts of such debt. For non-mortgage debt, conscientiousness is the only trait having significant effects. It is presented that conscientious people have lower probability of holding non-mortgage debt and smaller amount of debt.

**Keywords:** Personality Traits, The Big Five, Household Debt.

### KİŞİLİK ÖZELLİKLERİ VE HANEHALKI BORCU ARASINDAKİ İLİŞKİ

#### Özet

Bu çalışma kişilik özellikleri ile hanehalkı borcu arasındaki ilişkiyi incelemektedir. Burada, kişilik özellikleri için beş faktör içeren beş büyük kişilik envanteri kullanılmıştır; bunlar dışadönüklük, deneyime açıklık, sorumluluk, nevrozizm ve uyumluluktur. Hanehalkı borcu ise mortgage (ipotekli konut kredisi) borcu ve mortgage-dışı borç olarak iki kategoride değerlendirilmiştir. Bu çalışmada, Survey of Health, Ageing and Retirement in Europe adlı anketten elde edilen verileri kullanılmış olup analizde yararlanılan veri seti 12 Avrupa ülkesinden 50 yaş ve üzeri insanlardan oluşmaktadır. Bu beş büyük kişilik özelliğinin mortgage ve mortgage-dışı borçları nasıl etkilediğini analiz etmek için probit ve tobit regresyonlarını kullanılmıştır. Ampirik sonuçlar, beş özellikten mortgage borcunu etkileyen tek faktörün dışadönüklük olduğunu göstermektedir. Dışadönük kişilerin mortgage borcuna sahip olma olasılıklarının daha yüksek olduğu ve bu tür borca sahip olanlar arasında dışadönük kişilerin daha büyük miktarda borçları olduğu bulunmuştur. Mortgage-dışı borç için ise sorumluluk anlamlı etkisi olan tek faktördür. Sorumlu kişilerin mortgage-dışı borcu olma olasılıklarının daha düşük; ayrıca, borç miktarlarının da daha az olduğu ortaya konulmuştur.

**Anahtar Kelimeler:** Kişilik Özellikleri, Büyük Beşli, Beş Faktör Kişilik Kuramı, Hanehalkı Borcu.

### Introduction

The importance of personality traits in the economic and financial decisions of people has been realized in recent years. Many studies have been conducted to investigate the impacts of the personality traits on different decisions such as buying (Mowen, 2000; Youn and Faber, 2000), saving (Nyhus and Webley, 2001; Asebedo et al., 2019), risk tolerance (Nga and Ken Yien, 2013), investment intentions (Mayfield et al., 2008); financial outcomes (Brown and Taylor, 2014; Exley, 2022), net wand delinquency (Chhatwani, 2022).

In this paper, I examine the relationship between personality traits and household debt. In my analysis, I use “the big five” inventory for personality traits which consists of five factors: extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism. This

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is one of the most common taxonomies of personality traits used by many researchers. Besides, I consider household debt in two categories: mortgage debt and non-mortgage debt.

## 1. Data and Methodology

I utilize the data from the Survey of Health, Ageing and Retirement in Europe (SHARE). It is a panel data including nine waves so far, and my dataset is taken from its Wave-7 (2017-2018) of this survey. It has collected data from individuals who are 50 years old or older, and from different European countries.

When examining the association between personality traits and household debt, I use probit and tobit regressions. With these regressions, I analyze how each of the five personality traits affects mortgage debt and non-mortgage debt. I include a large number of control variables into my regressions such as age, marital status, number of children, work status, education level, and health condition. Country dummies are also included.

## 2. Empirical Results

The results of my analysis present that personality traits are important for household debt, and the effects of traits differs with the types of debt. Table 1 shows the results for mortgage debt and Table 2 shows for non-mortgage debt.

It is presented in Table 1 that, among all five personality traits, the only one which influences mortgage debt is “extraversion”. It implies that extravert people have a higher probability of having mortgage debt compared to introvert people, and if there is mortgage debt, extravert ones have greater amounts of debt.

**Table 1: Effects of Personality Traits on Mortgage Debt**

	Probit	Tobit
Extraversion	0.006 ***	0.081 ***
Agreeableness	-0.002	-0.022
Conscientiousness	-0.002	-0.032
Neuroticism	0.001	0.011
Openness to Experience	0.001	0.025

*Note: This regression includes control variables which are age, gender, marital status, number of children, number of grandchildren, education, work status, health status, numeracy, income, real wealth, financial wealth, and country dummies. Marginal effects are presented.*

**Table 2: Effects of Personality Traits on Non-Mortgage Debt**

	Probit	Tobit
Extraversion	-0.003	-0.037
Agreeableness	-0.000	-0.004
Conscientiousness	-0.009 ***	-0.110 ***
Neuroticism	0.001	0.013
Openness to Experience	0.004	0.040

*Note: This regression includes control variables which are age, gender, marital status, number of children, number of grandchildren, education, work status, health status, numeracy, income, real wealth, financial wealth, and country dummies. Marginal effects are presented.*

Table 2 present that, for non-mortgage debt (which consists of credit card debts, overdue bills, bank loans, etc.), conscientiousness is the only trait having significant effects; moreover, these effects are negative. This finding indicate that conscientious people are less likely to have non-mortgage debt, and when they have such debt, these people have smaller amounts relative to the others.

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