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Not all credit is created equal: Mortgage vs non-mortgage debt and private saving rate in Turkey☆

Cengiz Tunc [a,*], Abdullah Yavas [b,1]

[a] Central Bank of the Republic of Turkey, Turkey
[b] University of Wisconsin–Madison, United States

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ABSTRACT

The private saving rate in Turkey has decreased substantially since 2000. In this study, we investigate the determinants of the private saving rate in Turkey, with a special focus on the role of mortgage debt. We find a strong and robust negative effect of mortgage credit growth on private saving rate. Non-mortgage consumer credit growth also has a negative and robust effect on private saving rate, though its effect is smaller than that of mortgage credit. Business credit growth, on the other hand, has a positive impact on private saving rate. Our results provide strong support for the argument that the high growth rate of consumer credit is a primary reason for the recent decrease in private saving rate in Turkey. We also find that private saving rate displays strong persistence, and public saving rate partially crowds out private saving rate. In addition, per capita real income growth rate and macroeconomic uncertainty have positive impact on private saving rate.

1. Introduction

After the 2001 economic crisis, Turkey implemented a number of economic reforms and restructuring programs in order to stabilize the economy. Compared to the pre-crisis period, the Turkish economy is now much more stable, with a relatively low inflation level, lower real interest rates, and a substantially smaller public debt to GDP ratio. As the economy becomes relatively stable, we also observe significant decreases in the private saving rate (i.e. private saving/GDP). Fig. 1 depicts the private and public saving rates in Turkey from 1998Q4 to 2014Q2.

On the household side, a relatively more stable economy and better access to the credit market have enabled households to borrow more easily and at much lower interest rates. Hence consumer credit types displayed dramatic increases over this period (see Figs. 2 and 3). Though the current levels of household debt are still low as a share of GDP, the continuous upward trend indicates higher shares of GDP in the coming years.

The data in Figs. 1–3 suggest a rough correspondence between the rise in mortgage and non-mortgage debt and the decline in the private saving rate. However, there has been no formal statistical analysis of the link between changes in mortgage and non-mortgage borrowing and private saving in Turkey. Using quarterly saving data, this paper investigates the determinants of private saving rate in Turkey between 1998 and 2014, with a special emphasis on the effect of mortgage credit growth. The contribution of this study to the saving literature in Turkey is two-fold. The first contribution is that we analyze the impact of growth in mortgage credit on private saving rate. As mortgage credit became available at relatively low interest rates, both the flow and the stock of mortgage credit have increased since 2004. Although stock of mortgage credit as a percentage of GDP is still low (around 7 percent), at the current growth rate, the ratio of mortgage credit to GDP is expected to continue to rise. Hence, the impact of mortgage credit growth on saving rate could economically become even more significant in the future.

The second contribution of this paper is that we compare the magnitudes of the determinants of private saving rate for the pre-

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* Corresponding author. Research and Monetary Policy Department, Central Bank of the Republic of Turkey, Istiklal Cad. No:10, Ulus, Ankara, 06100, Turkey.

E-mail addresses: cengiz.tunc@tcmb.gov.tr (C. Tunc), ayavas@bus.wisc.edu (A. Yavas).

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1 Robert E Wangard Real Estate Chair, School of Business, University of Wisconsin–Madison, Madison, WI 53706, United States.

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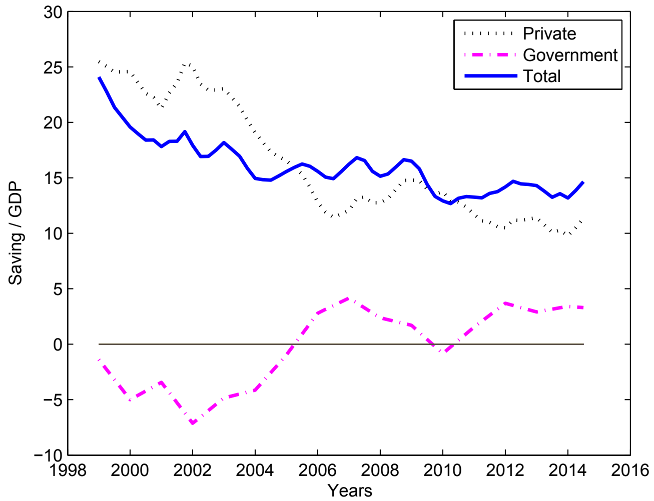

Fig. 1. Saving rates in Turkey (1999–2013), source: Ministry of Development of Turkey.

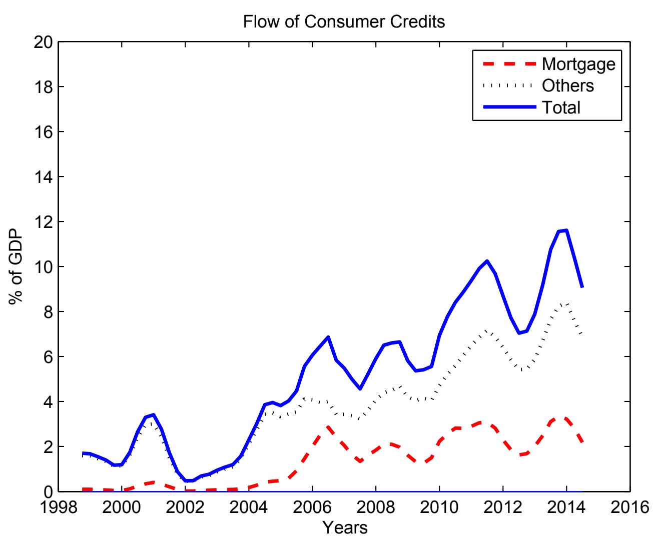

Fig. 2. New consumer credit types (1998Q4–2013Q3).
Source: The Bank Association of Turkey.This picture shows the ratio of annual new consumer credit types to annual GDP at quarterly frequency.

2001 crisis period to that of the post-2001 crisis period. The Turkish economy has gone through substantial changes after the 2001 crisis; inflation rate and real interest rates are much lower, financial markets are deepening, economic uncertainty has improved, and households and firms have gained easier access to credit at more favorable terms. It is highly possible that households' and firms' saving behavior have also changed as a result of these changes in the economic environment following the 2001 crisis.

The results of this study reveal that new mortgage originations have sizable effect on private saving rate in Turkey. A 10 percentage point increase in the ratio of new mortgage originations to GDP decreases the private saving rate by 12 percentage points. This is a surprisingly large effect as it suggests that mortgage payments lead borrowers to deplete their savings at a rate higher than their mortgage payments. Our results also indicate that the effect of new mortgage originations becomes larger with financial deepening in the mortgage market (i.e as the ratio of total mortgage debt to GDP increases). Non-mortgage consumer credit growth also has a negative and robust effect on private saving rate, though its effect is smaller than that of mortgage credit growth. A 10 percentage point increase in the ratio of new non-mortgage consumer credit originations to GDP leads to a decrease of 9.5 percentage points in private saving rate. We further find that while growth in mortgage and non-mortgage consumer credit originations has a strong negative effect on private saving rate, growth in business credit has a positive effect. A ten percentage point increase in the ratio of business credit flow to GDP ratio leads to a 1.8 percentage point increase in private saving rate. We also find that saving rate displays strong inertia and public saving rate has a robust partial crowding out effect on private saving rate. Improvement in terms of trade has a negative impact while income growth rate and macroeconomic uncertainty have a positive impact on private saving rate. Inspecting the effect of the improvements in the economy following the 2001 crisis, we find that the positive impact of business credit growth and the negative impact of non-mortgage consumer credit growth all become smaller while the negative impact of mortgage credit growth has increased. We also find that the positive impact of inertia has become smaller while the positive impact of income growth rate and the negative impact of public saving rate and terms of trade has become larger. It should be pointed out, though, that the changes in the coefficients are mostly minor.

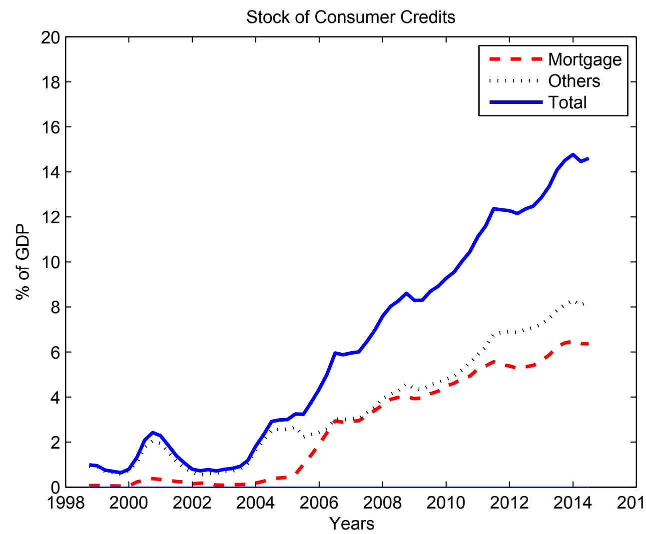

Fig. 3. Stock of consumer credit types (1998Q4–2013Q3).
Source: The Bank Association of Turkey.This picture shows the ratio of annual new consumer credit types to annual GDP at quarterly frequency.

The size and growth rate of mortgage debt is important for policy makers for a number of reasons. The primary reason is that housing constitutes a large share of the economy. The value of residential capital stock is typically larger than the value of business capital. In addition, housing is a significant component of household expenditure and household total wealth. Thus, through its impact on housing prices, mortgage debt will impact residential investment, household wealth and household consumption. As argued in Campbell and Cocco (2007), rising house prices will stimulate consumption by increasing households' perceived wealth and by relaxing borrowing constraints, with the impact on consumption being larger for older homeowners than for younger renters.[2]

[2] See Leung (2004) for a review of the literature on the interplay of housing markets and macroeconomy.