



FINANCIALIZATION OF HOUSEHOLD SECTOR IN TURKEY., 2000-2013

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ABSTRACT

In financialization age which is last stage of capitalism, traditional banking governance have changed their role. Banking has become mainly dependent on lending individuals without regulation. Household indebtedness was a contributing factor to the financial crisis as homeowners were unable to meet their debt obligations, such as rising credits, credit card payments. We empirically examine the relationship between Turkey output and household debt. To account for structural change due to financial deregulation, we divide the sample at the after 2000 year. In the regression analysis post 2000, we find some evidence that household debt variables had positive effect on output.

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Keywords: Household debt, Financialization, Financial deregulation.

Contribution/ Originality

This study originates new formula of ADL regression analysis with different parameters which have used at first time in Turkey as a household of financialization.

1. INTRODUCTION

The Turkey experienced a significant increase in household debt prior to the outbreak of financial crisis in 1999-2000. Household debt outstanding as share of GDP, for example, increased from about 10 percent in 2000 to nearly 100 percent in 2013 (see figure 1 and figure 2). The household debt burden increased as well. Final consumption expenditure of resident households typically accounts for about 70% of nominal GDP. Also figures 3 depicts private sector debt, increases 50 percent in 2000 to nearly 200 percent in 2013. Both measures also show upward trends, indicating that households' financial positions have continuously been deteriorated.

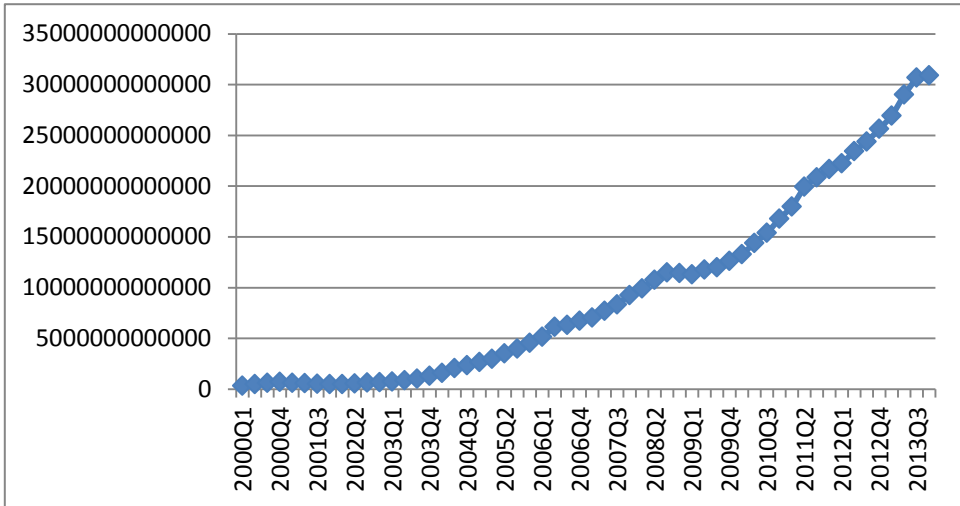


Figure-1. Household Debt (Billion TL)

Source: TCB (Turkey Central Bank)

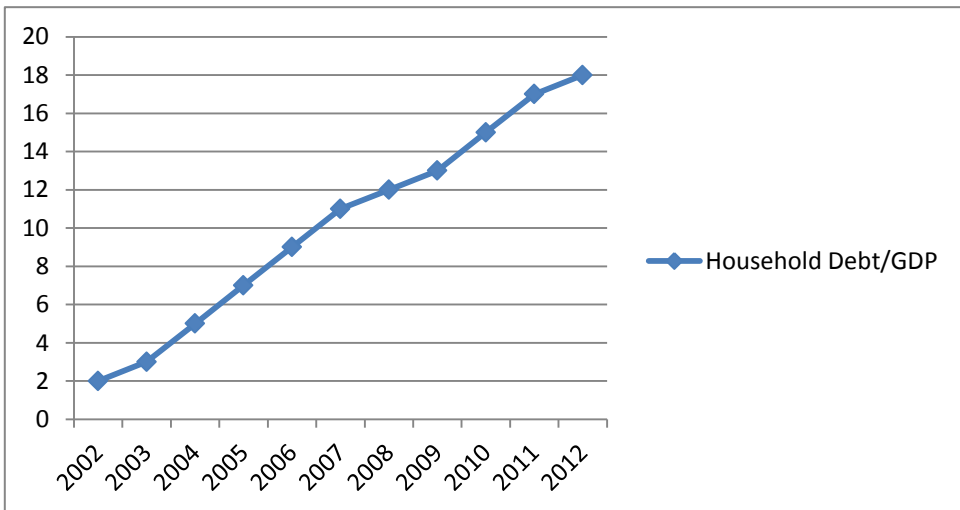


Figure-2. Household Debt-GDP Ratio (% TL)

Source: TCB (Turkey Central Bank)

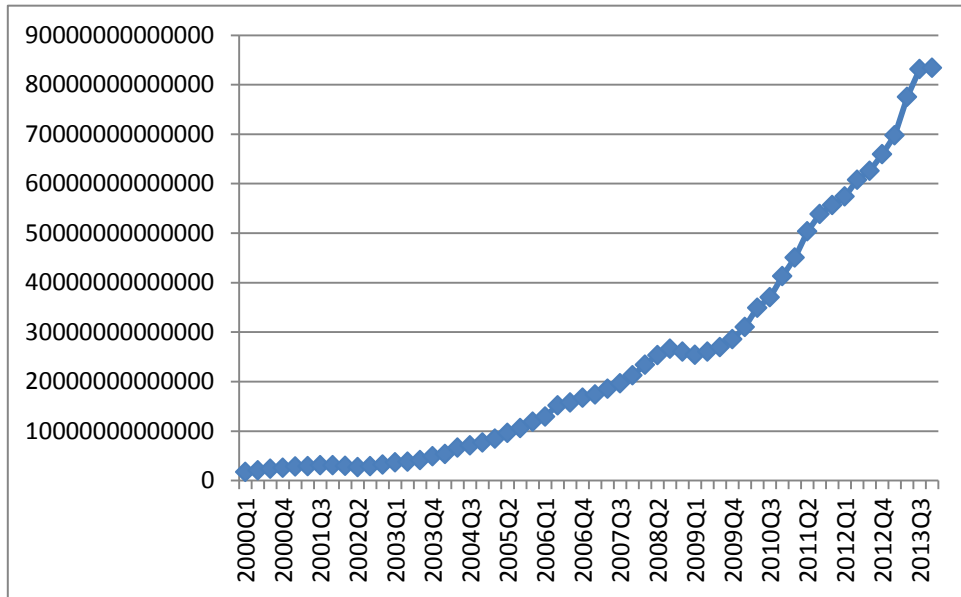


Figure-3. Private Sector Debt (Billion TL)

Source: TCB (Turkey Central Bank)

According to Stockhammer; financialization include deregulation of the financial sector, proliferation of new financial instruments, liberalization of international capital flows and increasing instability on exchange rate markets. There has also been a shift toward market-based financial systems, emergence of institutional investors as major players in financial markets, and domination of corporate governance (of financial and nonfinancial business) by shareholder value (Stockhammer, 2007).

As finance expanded, relations between industrial enterprises, financial institutions and workers were transformed. These changes determine more precisely the content of financialization. Thus, large industrial enterprises have become proficient at raising external finance in open financial markets, thereby acquiring financial functions and lessening their reliance on banks. There has been, in other words, financialization of productive capital. Consequently, banks have sought new fields of profitability, two of which stand out. First, banks have generated profits by mediating transactions in open markets. As a result, commercial banks have come increasingly to acquire investment-banking functions. Second, banks have made profits by turning toward individual workers and others, for instance, by providing mortgages and unsecured loans (Lapavitsas, 2009b).

Banks are seeing their loan portfolio deteriorate as firms are hit by the collapse of demand and unemployment rises. This is due to the devaluation of the local currency and a plunging real estate market, and the impact of these developments on house loans. Banking sector credit volume increases for household consumption. Banks shifts their operations to household sector consumption thus households debt become increase in Turkey. (See figure 4, 5 and 6).

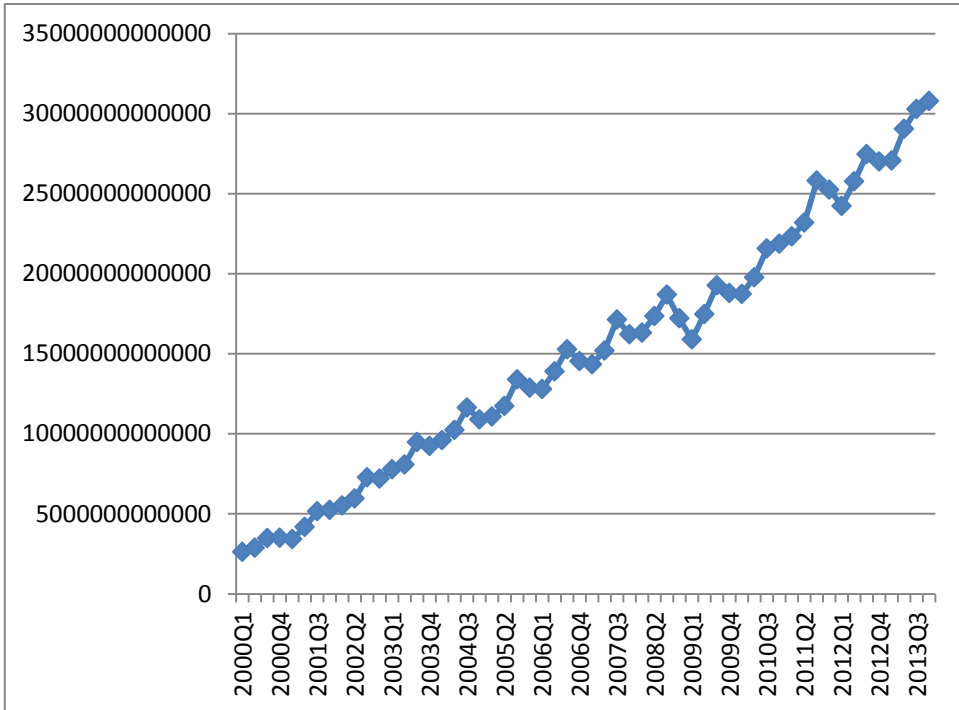


Figure-4. Domestic Consumption (Billion TL)

Source: TCB (Turkey Central Bank)

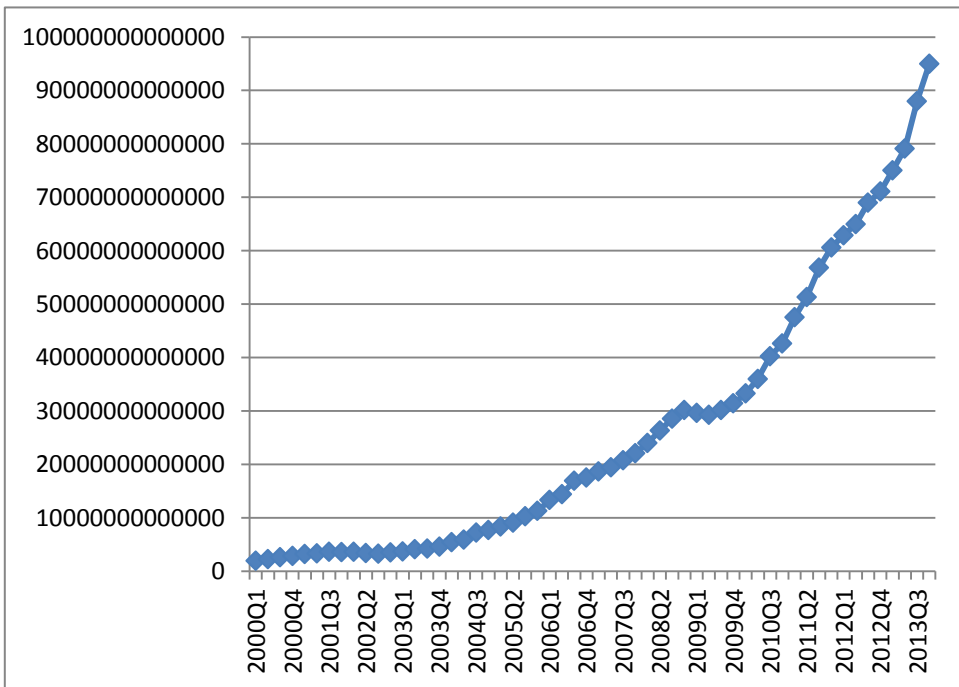


Figure-5. Banking Credit Volume (Billion TL)

Source: TCB (Turkey Central Bank)

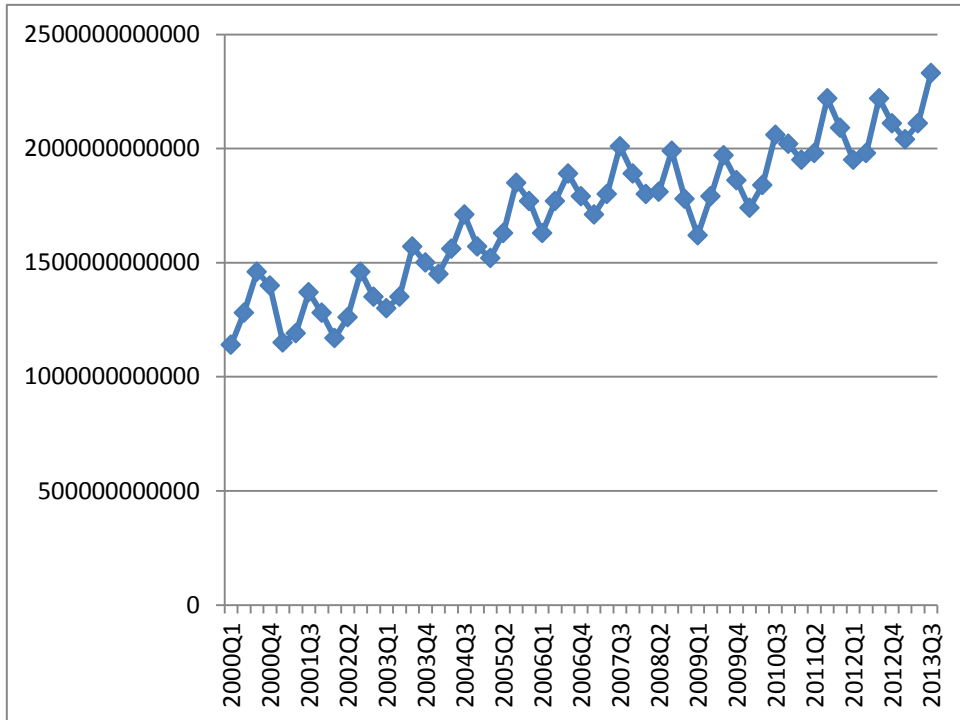


Figure-6. Household Consumption (Billion TL)

Source: TCB (Turkey Central Bank)

According to the Santos: two concrete factors condition the exploitative character of lending to individuals. First, the relationship is profoundly unequal. It involves on one hand a specialist in managing money flows trying to maximise profits, on the other an ordinary wage earner trying to secure access to consumption. Second the privatisation of provision for a number of basic social necessities has increasingly forced ordinary individuals into debt, transferring growing shares of their incomes to banks and other financial enterprises (Santos, 2009a).

In the term of financialization, household debt has risen rapidly in a number of developed nations. Neoclassical perspectives, which dominate mainstream economics, see financialization as reducing inequality as the poor are able to borrow to fund higher education and smooth out consumption (see Demirguc-Kunt and Levine (2009)). However, if rising access to credit is accompanied by rising costs of entry (i.e., into homeownership), financialization may simply lead to greater indebtedness with little other benefit.

2. INCREASE OF HOUSEHOLD DEBT IN EMERGING MARKETS

A further component of the Washington Consensus has been strongly to encourage entry of foreign banks into developing countries. The rationale typically was that foreign banks would improve efficiency while meeting domestic credit shortages. Yet, entry by foreign banks into developing countries since the 1990s has had unexpected results, including the redirection of bank lending toward personal income, thus strengthening domestic financialization. The presence of

foreign banks, furthermore, has affected the slide toward crisis in several developing countries. For these reasons the crisis of 2007-9 represents a major blow for the Washington Consensus. This has been clearly understood by its advocates, who have leapt to its defence (in Lapavitsas; [Demirguc-Kunt and Levine, 2009](#)).

These developments have been conditioned by a range of secular economic and financial changes in capitalism over the past three decades. Financial liberalization, the rise of institutional investors, and changing financial behavior by non-financial corporations eroded traditional banking and forced banks to look for new business and funding sources. Wage stagnation, growing inequality and the steady expansion of private provision of basic necessities in housing, education, health and retirement, have increasingly forced wage earners to approach banks and other financial intermediaries in order to gain access to basic necessities and obtain some degree of protection against risks they now face individually ([Santos, 2009b](#)). Santos offers a snapshot of a banking system geared towards the extraction of profits from individual wage revenue ([Santos, 2009a](#)).

The decline in the rate of profitability of banks, financial innovation on the one hand with them to overcome it, on the other hand the financial arrangements for the removal of the restrictions imposed by the application of political pressure has shipped. The negative effects of inflation, but also non-financial businesses through banks to borrow from the market directly through bonds has also been increased by orientation. Especially since the end of 1960, businesses can borrow short-term debt securities market development, the non-financial businesses a degree of dependence on banks reducing their direct access to the financial markets ensured.

As a result of this phenomena, banking sector has faced the declining rate of profits on one hand, on the other hand has faced with disappearance of the problems significant portion of the activities. The banking sector responded, with development of a range of financial innovation. Lending to individuals has become a major part of banks' overall lending activities ([Santos, 2009b](#)).

Therefore, financial institutions have been forced to change in profound ways during the last three decades. Two among these changes stand out: first, banks have turned toward individual income as source of profits and, second, banks have adopted investment banking methods generating profits through fees, commissions and trading on own account. The former is based on the financialization of workers' revenue in general. Workers have become heavily implicated in the activities of the formal financial system both in terms of borrowing (mortgages and consumption) but also in terms of assets (pensions and insurance). These developments owe much to the withdrawal of public provision across goods and services comprising the real wage: housing, health, education, pensions, and so on. Financial institutions, consequently, have been able to extract profits directly and systematically out of wages and salaries. This process is called financial expropriation ([Lapavitsas, 2009a](#)).

In stark to the view of growth in consumer credit as a negative force in the economy, a consensus seems to be emerging from recent research that consumer credit growth is positively related to consumption in future periods. Little evidence has been found that household debt

service burdens are negatively related to future consumption, though some theoretical models suggest a more complex relationship may be at work. Specifically, high debt service burdens could make household consumption more sensitive to a drop in income (or in expectations of future income), but more research is needed to evaluate these models (Maki, 2000).

The growth of household debt among low- and middle-income households is thus both reflective and constitutive of increasing disadvantage, inequality, and vulnerability. And, of course, it is typically the wealthy—who own the various financial securities that are linked to debt products and payments—to whom the poor are indebted, making a direct link between growing inequality and the rising indebtedness of the poor. Increasing housing costs and mortgage payments (for housing of the same quality) and the sales of resulting profit streams to secondary investors through securitization facilitate the expropriation of increasing proportions of the employment incomes of the majority on behalf of wealthy families, corporations, and institutions (Lapavitsas, 2009b). Also for Maki household debt is always high relative to disposable personal income, when household consumption arises without their income, it will lead to financial problems for households (Maki, 2000).

The effects of debt on inequality are augmented when households are forced to draw on unsecured credit to fund daily consumption, since in this case debt is not used to build equity or to purchase assets. Increasing household debt also exerts disciplinary social and political pressure on workers through control over economic behavior and repayment terms. While accessibility to credit has been expanded under neoliberalism in the name of providing more “choice” to consumers, it has been accompanied by additional legal sanctions against “irresponsible borrowing,” heightened institutional surveillance, and reforms of bankruptcy legislation in favor of creditors (Marron, 2009).

However, empirical studies of the impact of household debt have negative influence on macroeconomic performance. Palley (1994) was a pioneering empirical study that analyzed household debt and business cycles from a heterodox perspective—specifically from the perspective of Minsky’s financial instability hypothesis. Palley found that an increase in debt (new borrowing) raised real gross national product (GNP), and an increase in the debt service burden reduced GNP, based on an autoregressive distributed lag (ADL) model.ⁱ

Palley’s unstructured vector autoregression (VAR) model of changes in consumer debt, consumer debt burden and real GNP shows that a shock to the change in consumer debt or consumer debt burden generates an initial positive and subsequent negative GNP response respectively, both followed by a cyclical and damped response. Based on these results, Palley emphasized consumer debt and the debt burden as sources of cyclical variationsⁱⁱ

Palley’s study provides a point of departure for our empirical study. We will test for a relationship of household debt to aggregate output post 2000 period quarterly. Based on tests, we estimate the relationship of household debt to aggregate output post 2000 in the Turkey macroeconomy. Our data span is longer and we use GDP, which is the main measure of economic output used today instead of GNP as used Palley.ⁱⁱⁱ

3. EMPIRICAL ANALYSIS

Consumer credit and household debt service burdens do not figure prominently in traditional economic theories of consumption. In economic literature also Maki shows that [Modigliani and Miller \(1963\)](#) “life-cycle model”. In its standard formulation, households have access to a single asset, with which they can borrow and lend freely. Within this model, credit is simply used to transfer consumption from periods where household income is high to periods where household income is low and has no particularly interesting features in and of itself ([Maki, 2000](#)).

In this section, we study the empirical relationship between the level of output and measures of household debt in the Turkey economy. The household and consumer debt variables are from Turkey Central Bank and deflated by the personal consumption price index from Turkey statistic company (TUIK).

Recently, a plethora of literature has emerged on autoregressive conditional heteroskedastic (ARCH) models since [Engle \(1982\)](#) flagship paper. The results for the ARCH-LM test are presented in Table 1, respectively.

Table-1. ADL Regressions: Sample period 2000Q1-2013Q3

	Model1	Model2	Model3	Model4
(Constant)	-4,215*	-7,458*	-6,934***	-8,064**
	(-0,752)	(-2,449)	(-2,276)	(-2,689)
Real GDP _{t-1}	-0,441**	-0,507*		
	(-1,129)	(-1,346)		
Household Debt _{t-1}	0,511**	0,473**	0,482**	
	(1,615)	(1,526)	(1,544)	
Sector Debt _{t-1}	0,672***	0,71***	0,771***	0,822***
	(3,652)	(4,067)	(4,535)	(4,861)
Consumption _{t-1}	1,579*	1,401*	0,513**	0,577**
	(2,132)	(2,03)	(2,494)	(2,822)
Credit Volume _{t-1}	-0,802**	-0,806**	-0,844***	-0,744*
	(-4,552)	(-4,598)	(-4,843)	(-4,534)
Price Index _{t-1}	3,747***	5,678**	8,145*	8,552**
	(0,9)	(1,851)	(3,283)	(3,418)
Investment _{t-1}	975,841*	1054,19*	959,859**	1008,467**
	(2,403)	(2,719)	(2,496)	(2,595)
Household Consumption _{t-1}	-2,202**			
	(-0,69)			
Adjusted R-Squared	0,986	0,949	0,986	0,998
Godfrey-Breusch LM (2)	2,915	3,786	4,312	3,928
	0,037	0,017	0,013	0,015
ARCH(1)	1,998	1,354	1,152	1,012
	0,148	0,264	0,284	0,203

*,**and *** denote significance at 10, 5 and 1 percent, respectively. T statistics in parentheses.

Notes: Dependent variable: real GDP, Figures for the LM and ARCH tests are *F*- statistics with *p*-values.

We specified a constant and linear time trend and lag lengths were determined by the Schwarz Information Criterion (SIC). According to the tests, all household variables, investment and output have for entire sample period 2000Q1-2013Q3.

We use an ADL model in which the right-hand side variables are entered in both level and the first differenced form in our regression.^{iv} We utilize this empirical approach since ADL models are known to be robust to many estimation problems related to non-stationary variables (Hamilton, 1994). All the explanatory variables are lagged to prevent problems of simultaneity and reverse causality. The lagged terms are limited to one period (i.e., t-1) since additional lags of the explanatory variables increase multicollinearity problems and complicate the estimation.^v

Our dependent variable is the level of output (GDP). The main model is below:

$$\text{Output} = \beta_0 + \beta_1 \text{householddebt}_{t-1} + \beta_2 \text{privatesector debt}_{t-1} + \beta_3 \text{investment}_{t-1} + \beta_4 \text{priceindex}_{t-1} + \beta_5 \text{creditvolume}_{t-1} + \beta_6 \text{consumption}_{t-1} + \beta_7 \text{householdconsumption}_{t-1} \quad (1)$$

The change in debt stock represents the follow of new net borrowing, which should provide an additional source of finance for household expenditure aside from current income and investment^{vi}. Therefore, our hypotheses are that the change in household debt, credit volume and consumption has a positive effect $\beta_1, \beta_5, \beta_6 > 0$ on output. We expect that private sector debt and price index has negative effect, $\beta_2, \beta_4 < 0$ but in our model regress that it has not a negative effect. A main channel through which debt can influence GDP is the balance sheet effect via consumption. To isolate the effect of household debt on output, we therefore control for banking sector credit volume. We hypothesize that both level change credit volume and household consumption have negative effects on output so $\beta_5, \beta_7 < 0$. Table 2 indicate that for the last decade at current prices TL denominated GDP of 304%, denominated in USD at current prices GDP by 240% at current prices, per capita GDP 301% of Turkey's total external debt stock over the same period in current prices and 150%, internal and external public sector debt stock increased by 119% in TL and 268% in \$ shows. So far, it seems everything went smoothly. There are two issues striking first in the table: (1) All dollar exchange rate increased exponentially increased only 19%. So down to the fixed exchange rate regime showed a similar application. (2) In 2002, households without so much debt at the end of the year 2012 came under serious debt burden. 7304% increase in the amount of household debt in the upside seems to have a record of the period.

Table-2. Turkey Debt Data

Year	GDP (Billion \$)	GDP Per Capita (\$)	External Debt Burden (Billion \$)	Public Debt Burden (Billion \$)	Household Debt Burden (Billion \$)
2002	231	2.169	144	170	39
2003	305	3.383	161	197	86
2004	390	4.172	171	220	188
2005	482	4.964	208	232	340
2006	526	7.500	250	242	465
2007	659	9.333	281	235	700
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2008	742	10.376	269	270	890
2009	618	8.456	281	308	806
2010	736	10.079	292	329	1120
2011	774	10.444	304	331	1293
2012	791	10.504	337	327	1424
2002–12 Growth (%)	304	301	254	268	7304

Third table in the last decade show us that, public debt and the GDP share of Turkey's total external debt stock has decreased, correspondingly exhibits a rapid increase in the debt burden of households. The second table shows there is an issue that attracts attention: the public sector's debt burden declined in the past 11 years, whereas the debt of households and the private sector for the last decade has increased rapidly.

Table-3. Debt to GDP Ratio

Yıllar	Public Debt / GDP (TL, %)	External Debt / GDP (\$, %)	Household Debt Burden / GDP (TL, %)	Public Debt Burden / GDP (%)	Private Sector Debt Burden / GDP (%)
2002	73	56	2	28	19
2003	65	47	3	23	16
2004	60	41	5	19	16
2005	54	35	7	15	18
2006	48	40	9	14	23
2007	42	38	11	11	24
2008	43	38	12	11	25
2009	49	44	13	13	28
2010	45	40	15	12	26
2011	42	39	17	12	26
2012	40	43	18	13	29

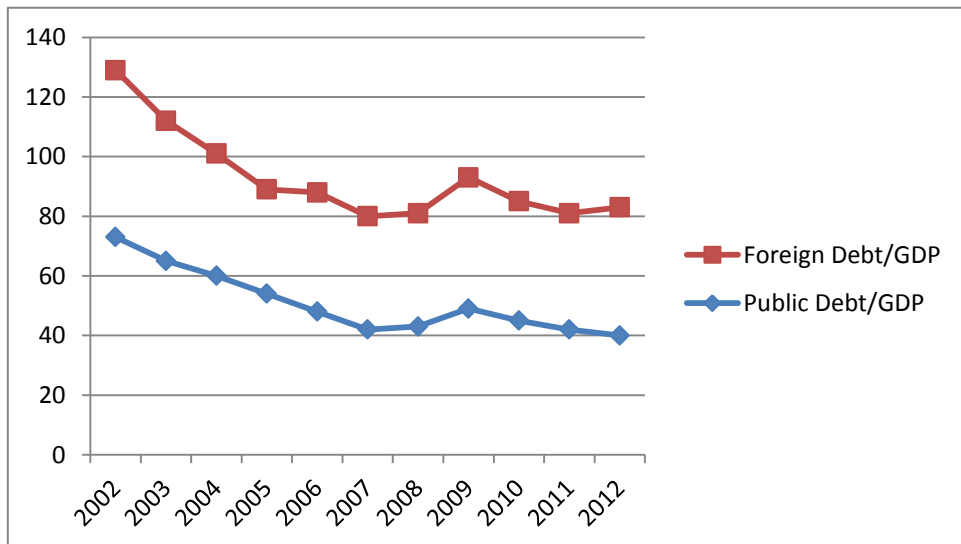


Figure-7. Foreign Debt/GDP-Public Debt/GDP (%)

Source: TCB (Turkey Central Bank)

Looking at the developments in the last decade we can say that debt in prior periods, which owes the debt of the public sector while the private sector and individuals have changed hands and came to the borrower. This condition; Turkey's through 2000, imposed public sector weighted, budget deficit and public sector debt-based growth model instead of the private sector mainly private sector investment and savings deficits, the current account deficit and hence the private debt-based growth model have been set in the direction of review with my an overlap.

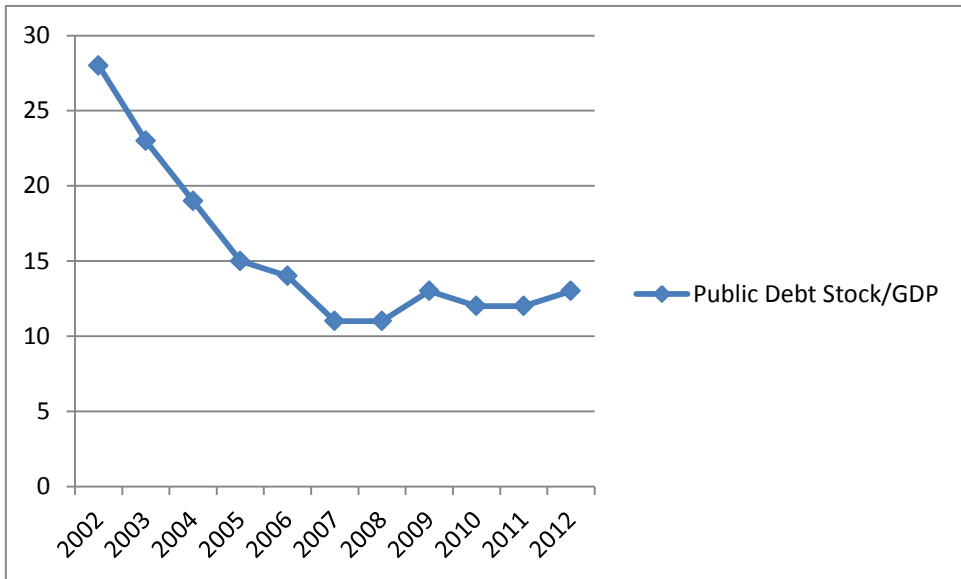


Figure-8. Public Debt Stock/GDP (%)

Source: TCB (Turkey Central Bank)

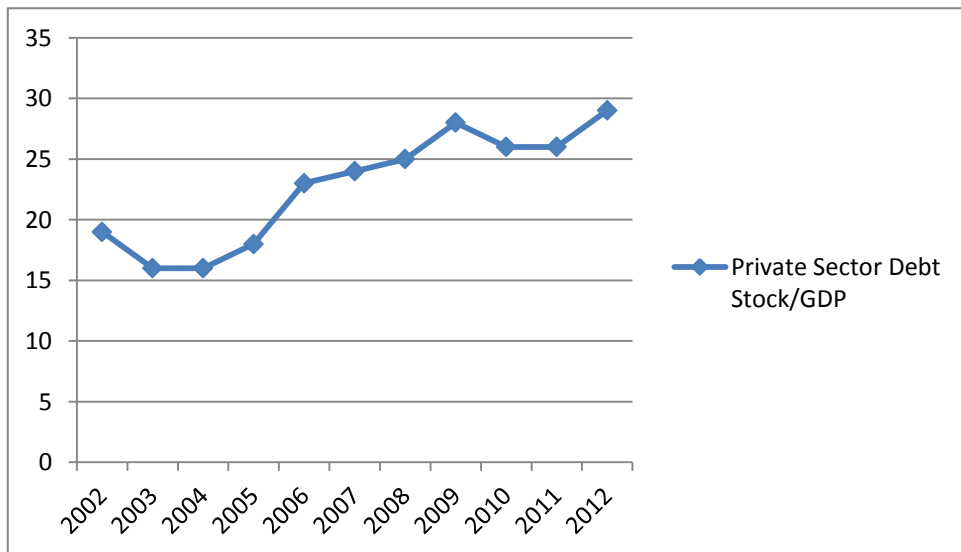


Figure-9. Private Sector Debt Stock/GDP (%)

Source: TCB (Turkey Central Bank)

This new model is the most obvious difference from the old borrowing from the public sector to the private sector as well as the shift of households is becoming the debtor. In the past people "How to pay this debt?" said, it means they were concerned about the public sector's debt, now is the time to think about their own debt how to pay. Because imposing a tax to pay the debt of the public sector, printing money, creating inflation to ease debt is the ability to apply such methods even though many of the private sector and households does not have such capabilities.

4. CONCLUSION

Banks during the recent era of financialization of capitalism who have changed their management style. Loan volume expansion as for household uses which the main purpose of banks, is to finance the real sector investments. In developing countries, attention is given to the demand side growth. To this end, future income households easily lends money is confiscated. While savings are reduced due to this reduces the investment.

This is determined by verifying if the correlations between debt and other macro variables have changed over time. The results of this paper show that the correlations between total household debt and key macroeconomic variables have not changed materially overtime. However, when evaluating the correlations between the individual debt components, residential mortgage debt and consumer credit debt, the results reveal an interesting distinction. The motivation for the study comes in response to the renewed views on household debt in the wake of the financial crisis. This analysis can help develop a full and proper understanding of how household finance can serve to both mitigate and exacerbate financial instability. By better understanding how debt interacts with other macroeconomic variables, policy makers can develop better policies to prevent future crises or to be better equipped in dealing with the subsequent aftermath.

I find that the volatility of household debt burden and most the key variables presented tends to be relatively volatile and typically persistent through time [Iacoviello and Pavan \(2008\)](#) found that the correlation of US household debt and aggregate economic activity changed in the early 1980s. This paper went far beyond that to analyze findings on the changing characteristics of household debt correlations would emerge in different recessionary periods in Turkey. Rather than painting a picture of the correlation over a standard time frame, this paper has portrayed the correlations throughout time to provide a more thorough understand of the interaction between debt and the macro economy. The sample size used covers the three different recessionary periods: 2000-2013. While the correlation with debt and almost every other series experiences an increase in variability in the correlation during these periods, the magnitudes varied by series.

In conclusion, the coming months (or years) presents a unique challenge for highly leveraged households as the low cost of borrowing will inevitably rise, straining the household's pocketbook, one can only hope that policymakers will be prepared *ex ante*.

Our empirical results indicate evidence of evidence of a structural change in the relationship of Turkey output to household debt.

The ADL regression analysis for the whole sample period indicates that household financial variables in general have effects on output-including a positive effect of the level of household debt, as hypothesized.

As a result deregulation in Turkey up to 12% savings rate dropped. Credit demand in consumption while keeping a high level of interest rate increases.

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Notes

ⁱ There are few other empirical studies that provide rather inconsistent evidence. [Garner \(1996\)](#) and [Schmitt \(2000\)](#) find that some macroeconomic indicators (e.g., real GDP) predict the various consumer debt measures in the Granger causality sense, but not the reverse. The Granger approach tests whether past values of one variable can improve the prediction of the value of another variable. Regressors in Palley's regression are all past values.

ⁱⁱ We attempted to replicate Palley's regression and Var results. Although we could not obtain the exact data set as Palley used, our replication results are similar to Palley's results.

ⁱⁱⁱ The gross national product (GNP) was the main macroeconomic aggregate used in the U.S. at the time of Palley's study.

^{iv} The specification can be interpreted as a variant dynamic Ordinary Least Square (DOLS), suggested by [Stock and Watson \(1993\)](#) as a method that robust to the inclusion of nonstationary and possibly cointegrated data. In the Stock-Watson DOLS method, the coefficients on the variable in levels can be interpreted as the long-run relationships.

^v A similar empirical modeling strategy was adopted by [Stockhammer \(2004\)](#) who explores the linkage between financialization and capital accumulation.

^{vi} Our specification is somewhat different from Palley's specification. In Palley's work, the real debt burden is proxied by the level of real per capita consumer installment debt multiplied by the ex post real prime rate. Similar, but more broadly defined debt burden measures are incorporated in the section 2.2. Palley also incorporates a nominal debt burden measure, nominal prime interest rate and measure of inflation tax as regressors. We drop these variables since our variables are all real and focus is on the impact of the real value debt accumulation on real GDP.