LACK OF ADJUSTMENT OF THE CYPRUS HOUSEHOLD SECTOR
RESULTS FROM THE EUROSYSTEM'S HOUSEHOLD FINANCE AND CONSUMPTION SURVEYS

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ABSTRACT

The results from the second wave of the Eurosysystem's Household Finance and Consumption Survey (HFCS) indicate that Cyprus households experienced very large falls in their incomes and value of real assets between 2009/2010 and 2013/2014. However, despite their worsening financial situation households largely maintained their relatively high level of consumption during the crisis years from 2012 onward by taking on more debt and running down their financial assets. This relative failure of Cyprus households to adjust their expenditures and repair their balance sheets during recent years has resulted in huge debt problems for many households and their creditors. Indeed, HFCS estimates indicate that the ratio of required debt payments to income for Cyprus indebted households reached 35.7% in 2014 and was an overwhelming 64.1% for the least-wealthy bottom 20%. Policy recommendations for dealing with the serious financial difficulties of households are advanced including a program to write-off the debt of households which do not have the ability to repay.

Key words: household net wealth, household dissaving, household debt, middle-class squeeze, tax evasion, debt write-offs.

JEL codes: D12, E21, E69, G29, H26, H31

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1. Introduction

A comparison of the results of the Eurosystem's Household Finance and Consumption Surveys (HFCS) for the first wave and the second wave provide interesting insights into economic and financial developments in the household sector of Cyprus and other euro area members in recent years. As the results of the two waves are centered around the pre-crisis (2009/2010) and post-crisis (2013/2014) years[1] for Cyprus an assessment can be made on how the household sector has adjusted to the financial crisis of 2012-2013. Accordingly, the following based on the HFCS results and supplemented by data from household surveys of the Statistical Services of Cyprus (Cystat) and Eurostat focuses on the consumption and financial behavior of Cyprus households comparing it in certain cases with that of households in other countries of the euro area. Particular attention is given to the evolving debt situation and consumption and financing actions of the different household groups in Cyprus classified by net wealth and incomes levels so as to render specific policy recommendations.

2. The Lack of Adjustment by Cyprus Households

The HFCS results for 2010 show that Cyprus households on average entered the pre-crisis years with a relatively elevated level of net wealth even if account is taken of the larger number of persons in Cyprus households. The median value of real assets owned by Cyprus households including main residence and other real estate was estimated at €313,800 in 2010 (Appendix table 1) compared with the euro area median of €146,300. Their financial asset holdings as well with a median of €22,100 in 2010 were considerably above the median euro area household level of €11,000. And by drawing on this considerable wealth, particularly on retirement funds and bank deposits over the period 2010 to 2014, and exercising a reluctance to punctually service their outstanding debt, Cyprus households managed to largely maintain their consumption levels, despite sharply falling incomes during the crisis years. Indeed, data prepared by Cystat show median household disposable incomes declining by 18.8 % between 2010 and 2014, yet private consumption per capita at current prices decreasing by only 3 to 4 % over this period (Appendix table 2). This marked divergence between declines in incomes and consumption together with

[1] The reference period for household income reported by the HFCS is the 12 months preceding the period of the field work (for instance, 02/14 to 07/14 for the second wave for Cyprus), meaning that all of the results of HFCS are not strictly centered on the years 2010 and 2014 and may not be completely comparable with those of other countries, where dates of field work may differ.

the March 2013 haircut on bank deposits resulted in the median level of financial assets held by households falling by 28.5% over the four years to 2014.

With many households unable and/or unwilling to service their debts and with the extension of new loans and the capitalization of interest, the median of debt outstanding of indebted households rose by 25.7% from 2010 to 2014 (Appendix table 1). In fact, the median level of debt of Cyprus households at €75,700 became by far the highest in the euro area relative to income, being 2.7 times the euro area average in 2014. In this respect, the ratio of household debt to income according to Eurostat estimates rose from 169.8% in 2010 to 203.0% in 2014 (Appendix table 3). Furthermore, the lack of deleveraging and the persistence of relatively high levels of consumption resulted in the household saving ratio becoming very negative, with Eurostat estimates showing this saving rate falling to minus 3.3% in 2013 and to minus 7.9% in 2014. Furthermore, with a large number of households not significantly reducing their debt and with steep falls in incomes, the burden of debt servicing became increasingly problematic for Cyprus households. In fact it is estimated that the debt service to income ratio for Cyprus households with required debt payments climbed from 25.0% in 2010 to 35.7% in 2014.

Most strikingly, the failure of Cyprus households to adjust their expenditures and repair their balance sheets in the wake of the financial crisis contrasts with the experience of certain other financially distressed countries in the euro area. For example, households in both Spain and Portugal kept their consumption expenditures well below their incomes over the period 2010 to 2015, which facilitated the generation of considerable savings to enable the servicing of their debts. Thus by 2014 indebted households in Spain and Portugal were able to reduce their median debt service ratios to more manageable levels of 19.1% and 16.2%, respectively (Appendix table 4).

3. Changes in Net Wealth and Income Distribution

There is a need to explore developments in the composition of these aggregate figures to see how the economic and financial situation of the different households classified by net wealth and income percentiles have changed between the two waves so as to assess whether, among other things, there have been significant changes in wealth and income inequalities. What is clear from the HFCS results is that all household groups in Cyprus experienced very large falls in their net wealth between 2010 and 2014 (Appendix table 1). Over this period the net wealth of the bottom 20% of households was virtually wiped out with the median falling by 83% to €1,300, while the net wealth of the top 10% is estimated to have declined by 43% to €1.39 million. Households in the middle wealth quintile registered a 36% fall in their net wealth to €171,100. In terms of the distribution of net wealth HFCS data show a shift in favor of middle-wealth households at the expense of the bottom 20%, and to a lesser extent to the detriment of the top 20%; the latter owned 73% of the household wealth in 2014, with the richest 10% possessing over 57%.

HFCS income data for Cyprus and other countries are considered to be less reliable and less comparable across euro area members than the net wealth figures. Nevertheless for Cyprus these data indicate that all household groups classified by net wealth percentiles recorded large falls in their incomes over the period 2009/2010 to 2013/2014. Median gross household incomes in nominal terms declined by 29.8 % over these four years according to the HFCSs with the bottom 20% of households experiencing a 19.2% fall and the top 10% a 27.2% decrease; a decline of 38.4% in incomes was registered by households in the middle income quintile (Appendix table 2). It should be noted that with the rise in consumer prices of 6.8% between 2009/2010 and 2013/2014 the falls in real household incomes were even larger.

Derived figures on household income distribution classified by income percentiles show all groups, particularly households from the 60 to 90 percentile, gaining at the expense of the top 10% between the two waves . However, these figures differ markedly from the results of the household surveys of Cystat[2], which show the median of household equivalised income of the top 10% showing only a relatively small fall (9.7%) and distinctly increasing their income share to the detriment of all other income groups between 2010 to 2014. Indeed, Cystat estimates show the Gini coefficient for household income distribution increasing by 15.1 % to 33.6 and the ratio between the top income decile and the bottom income decile rising by 28.2% to 8.3 over these four years.

[2] Because of different definitions of and different reference periods between the HFCS and Cystat for household income estimates, the results of these two surveys are not strictly comparable. For example the reference period for income reported by the HFCS for 2014 is the 12 months preceding the period of the field work, that is for Cyprus from February 2014 to July 2014, whereas the reference period for the 2015 household survey is the 2014 calendar year.

The HFCS methodology report indicates that survey respondents tend to understate their incomes; for Cyprus there is evidence at least from the income tax collections from the self-employed[3] suggesting that it is the wealthiest persons with their increasing propensity for income tax evasion and the shifting of assets abroad before and following the onset of the financial crisis which have most likely understated their incomes and even their wealth to a much greater extent. It is possible that the declines in incomes and wealth of the richest Cyprus households have been overstated in the results of the HFCS, meaning that rising inequalities in wealth and income distribution may have been underestimated as well.

4. Impact on Different Household Groups

With the results on changes in net wealth and income distribution for Cyprus households from the HFCSs at least showing no clear changes in inequality at an aggregate level and with income data being somewhat more fragile it is instructive to assess the impact more directly of the steep falls in net wealth and incomes on the different household groups using the rich detailed data of the HFCS, particularly that on debt.

a. Wealth-poor Households

As the less-wealthy households accumulated more debt and ran down their financial assets and experienced falling prices for their property assets their net wealth position fell precipitously to low levels with that of the poorest (the bottom 10%) becoming negative. In addition sharply falling incomes have depleted the ability of wealth-poor households to meet their regular expenses (on food, clothing, utility and heating bills etc.) let alone afford more discretionary outlays as well as service their debt. Given these developments it is no coincident that the risk of poverty or social exclusion rate for Cyprus households increased from 24.6% of the population in 2010 to 28.9% in 2014. Furthermore, the severe material deprivation rate for Cyprus households rose from 11.7% of the population in 2010 to 15.4% in 2014, a staggering increase of nearly 32%. It is quite striking as well that the ratio of debt service to income for the least

[3] Figures from the Cyprus Ministry of Finance, most of which are submitted to the House of Representatives at the time the annual Government Budget discussions show that tax collections from the self-employed have fallen from their peak of €81.6 million in 2012 to €30.3 million in 2014 and rose to just €34.7 million in 2016. In contrast, income taxes received from Government employees increased from€45.7 million in 2012 to €49.6 million in 2014 and rose further to €59.9 million in 2016.

wealthy (bottom 20%) households surged from 23.1% in 2010 to 64.1% in 2014 (Table 3), a figure aptly revealing the inability of wealth-poor indebted households to repay debt.

b. Middle-level Households

It is argued that the so-called middle-class households constitute the backbone of advanced economies, contributing importantly to economic growth through undertaking the bulk of rising consumption expenditures and investments in SMEs. And it is further contended that the decline in real incomes in recent years has squeezed the number of middle-class households in Europe and the United States. What is the situation in Cyprus as indicated by the HFCS?

The first wave HFCS results show that Cyprus middle quintile households came into the crisis period with much higher net wealth and incomes than their counterparts in most other countries of the euro area (Appendix table 5). In fact, the mean net wealth of these middle-level Cyprus households was estimated at €267,500 in 2010, more than twice the euro area average of €108,300. And the median income for all Cyprus households in 2010 was €32,300 compared with the euro area median of €27,300. And assuming that households from 70% up to 130% of the median income are included in the so-called middle-class category this would approximately include households from the 20% wealth percentile to the 75% wealth percentile, that is, with annual household incomes ranging from €22,610 to €42,000. However, as indicated by the second wave results these middle-income households experienced substantial falls in incomes in the period from 2009/2010 to 2013/2014. The median for incomes in the 20% to 40% wealth percentile decreased by 32% and that for the 40% to 60% wealth percentile fell by over 38%. In line with these income declines it is estimated that all of the households in the second quintile would no longer be classified as being in the middle-class as well as three quarters of those in the third quintile. This development would mean that around 35% of households would have been squeezed out of the middle class into lower ranks because of the steep decline in their incomes to below €22,610 by 2013/2014. And with a number of households in the top wealth echelons suffering large falls in their incomes between the two waves there would have been entry to the middle class from above so that the middle-class category reached an estimated range from the 55% wealth percentile to the 90% wealth percentile in 2013/14, resulting in a considerable shrinking of households in the upper wealth group as well.

It should be noted that the above calculations on the squeezing of the middle and upper wealth groups according to incomes do not take account of the increase in consumer prices of 6.8% as indicated above that took place between the two waves and further reduced real incomes.

Although they were encountering falling incomes middle-level households have on average failed to deleverage and even have taken on more debt thus raising substantially their debt servicing burden. Indeed, the ratio of debt service to income for middle- level households in the 40-60% wealth quintile rose from 19.3% in 2010 to 27.2% in 2014, while this ratio for households in the 20-40% quintile increased from 25.8% to 36.6% over the same period.

It appears that in response to their falling incomes many middle-level households opted more to largely maintain their consumption levels through dissaving rather than servicing their debt, a process that was reflected in a sizable reduction in their financial assets, well in excess of that stemming from the deposit haircut. The second wave results show that households in the second, third and fourth wealth quintiles recorded reductions of 40%, 31% and 20%, respectively, in their median financial assets between 2010 and 2014. In this connection a most conspicuous result is that by 2013 /2014 only 17.6% of Cyprus households in the middle wealth quintile were estimated to have the ability to save (regular expenses less than income indicator) , the third lowest level after Greece and Latvia in the euro area where the average was 46.1% (Appendix table 5). In contrast in Spain the corresponding ability to save indicator rose to 32% of middle quintile households in 2014 and for Portugal it increased to 34% of households.

c. Wealth-rich Households

Cyprus households in the top two net wealth deciles came into the crisis years with greater net wealth as measured by median estimates than most other euro area countries except Luxembourg. The median estimate for financial assets of the top wealth decile in 2010 was €130,600, well above the euro area average of €85,200. However, owing mainly to falling house prices and considerable debt growth over these four years as well as the haircut on deposits, median net wealth fell by 39% and 43%, respectively, for the 80-90 and 90-100 wealth percentiles. In addition the gross incomes of these wealthier households declined according to median estimates by 24% for the 80-90 wealth percentile and over 27% for the top wealth decile from 2009/2010 to 2013/2014.

In response to their falling incomes and their declining net worth these wealth-rich households took on more debt and drew down their financial assets in order to maintain their high consumption levels. It is noted that the "ability to save" indicator for the two top wealth deciles declined from 40% of households in 2010 to 23% in 2014, a development consistent with the steep decline in the overall household saving ratio to negative levels since 2012. Financial assets of households in the 80-90% wealth decile decreased by 60% to €23,000 between 2010 and 2014, while households in the top decile recorded a 62% fall in their financial assets to €50,100, that is huge declines even if account is taken of the impact of the deposit haircut on their financial wealth.

The HFCS results show that by 2014 the wealthiest households because of their continued debt accumulation and failure to save had reached a situation where they faced mounting debt servicing obligations with much depleted reported financial resources. Indeed, the median debt service to income ratio for the 80-90% and 90-100% wealth deciles reached 32.6% and 36.6%, respectively, in 2014, uncomfortable levels in line with those of less wealthy middle-level households.

More Recent Economic and Financial Developments in Household Sector

But before discussing further the economic and financial impact of the HFCS second wave results for Cyprus and their policy implications there is a need to assess whether the main developments described above have continued. Detailed data on more recent household sector developments are limited because of the absence of household survey results beyond the reference year 2014. What is evident from the second wave results is that Cyprus households entered the years after 2014 still with considerable net wealth including financial assets, well in excess of most other euro area members, but also burdened with very high levels of debt (Appendix table 1), around one-half of which constituted non-performing bank loans.

Data of the Central Bank of Cyprus (CBC) on financial assets and liabilities show that households effected some adjustments in their balance sheets by deleveraging modestly in both 2015 and 2016 and raising their bank deposits during these two years. It is estimated that net financial wealth of total households and non-profit institutions rose marginally from €20.0 billion at end-2014 to €20.1 billion at end- 2016. However, with real estate prices estimated to have risen slightly by 0.6% between the fourth quarter of 2014 and the fourth quarter of 2016 it is likely that the overall net wealth of the household sector edged up over this period.

Available data indicate that average monthly earnings of employees, the main source of household income, fell by 0.6% in 2015 and by 0.4% in 2016, but given the decline in consumer prices, real earnings rose by 1.5 % in 2015 and by 1.4% in 2016. Estimates of the imputed wages and salaries of the self-employed, which is another important source of household income, are not available. However, with data showing that the compensation of employees rose marginally in 2015 after declining by 15% over the previous four years, and with payments for pensions increasing in 2015 and 2016 it appears that the fall in household incomes was probably halted in 2015 and may even have risen in real terms over the last two years.

Beyond 2014 for Cyprus there is no direct information on whether there have been any significant changes in the wealth and income distributions between the different household groups. Indirect evidence shows that in 2015 compensation of employees as a proportion of GDP at factor incomes fell slightly to 44.3%. While in the last two years wealth-rich households deriving earnings from investments in hotels and from the activities of large accounting and law offices have greatly increased their incomes, it is unclear how high income-earners in other segments of the economy have fared. It is noted the actual system of tax collections has become more regressive with the abolition of the property tax and the increasing income tax evasion by self-employed professionals. Furthermore, with greater reliance being placed on regressive indirect taxes lower income earners have been hurt disproportionately. In sum, it does not seem that there has been any significant shift toward reversing the trend toward greater and high income inequality that occurred up to 2014, as shown by the household surveys of Cystat. In this respect the European Commission in their recent 2017 Country Report on Cyprus state that "Inequality has been rapidly increasing in recent years, and remains a source of concern" and note that "the widening inequality has been caused by the faster income growth of the richest"[4]

Against these developments of the levelling off of the steep declines in net wealth and incomes, households increased their per capita household consumption in 2015, its rate of increase being in excess of that of household incomes. Eurostat estimates show the household saving ratio

[4] European Commission, Country Report Cyprus 2017, p.5.

continuing to be negative with a dissaving rate of 5.7% of GDP in 2015. Provisional national accounts data for 2016 indicate that private final consumption rose a lttle faster than income increasing by 2.9% in real terms. However, with household financial assets increasing during 2016 there are questions about how in addition to increased incomes the relatively high level of consumption was being financed and whether the propensity of households to dissave of recent years was ending. For instance, did households in 2016 repatriate funds from abroad enabling them to boost consumption and rebuild their financial assets? And have certain households continued to increase their borrowings from other households to support their expenditures? It is noted that the average amount of money owed to Cyprus households according to HFCS results increased from €7,600 in 2010 to €11,500 in 2014.

Moreover, with Cyprus households seemingly spending virtually all of their incomes on consumption, and financial assets not being substantially run down, little priority continued to be given to the prompt servicing of their debt. Indeed, the ratio of household debt to income according to Eurostat estimates has remained at a very high level and was estimated to be just under 200% at end-2015. Similarly, with a lack of significant deleveraging the ratio of debt service to income of households seems to have persisted at an uncomfortably high level of around 35% in 2015 compared with the euro area average which fell to an estimated 13%. Household debt outstanding to banks declined by 3.9% in 2016 as debt-write-offs and debt-to-asset swaps accelerated and as debt repayments recorded a modest increase. Nevertheless, despite some repair of household balance sheets the level of household indebtedness continues to be extremely elevated at 123% of GDP according to the latest Central Bank estimates for end-December 2016. In addition the servicing of this debt remains very low and is being reflected most strikingly in the maintenance of NPLs at disturbingly high levels of just under 50% of gross loans outstanding.

5. Policy Implications and Recommendations

The basic problem facing policymakers is that with the bulk of households burdened with considerable debt and having experienced substantial falls in incomes and wealth as a result of the financial crisis, a large number of households do not have the resources to both maintain their current level of consumption and to meet their debt and other financial obligations, let alone contribute to economic growth with higher savings and investments in productive assets. In fact, the complacency of the Cyprus authorities and their "Troika" partners in not focusing on and addressing the private debt problem and opting to condone and even encourage the practice of bankers in "extending and pretending" in dealing with NPLs has led to a large number of households increasingly not being able to repay their overwhelming debt obligations.

Policies to address this problem should aim, firstly, at generating sustained economic growth so that household disposable incomes can be raised through the transmission of productivity gains into higher wages and salaries. In this connection Savvakis Savvides and the author outline in a recent paper policies and institutional arrangements that would provide for a better prospect of achieving sustained economic growth[5]. It is argued that with private home demand fragile and investment opportunities in the domestic economy scarce owing to weak local demand the Government should take the lead in propelling investment-led growth by using own and ample EU funds for capital outlays in infrastructure projects and tourism. It was contended also that the private sector should engage in the undertaking of investments such as in the construction and renovation of hotels to take advantage of buoyant foreign demand, particularly for the Cyprus tourist product.

Secondly, there is a need to redistribute incomes toward lower and middle income households so that they can benefit from economic growth and reverse the trend toward greater wealth and income inequality through a more progressive taxation system and via social transfers. It is stated in the aforementioned report of the European Commission on Cyprus that "the tax-benefit system in Cyprus is among the least effective in the EU in reducing inequality" and add that "its effectiveness may deteriorate even further following the abolition of the property tax in 2017"[6] This judgement of the Commission is perhaps too harsh in respect to recent changes in the provision of social benefits. While there is a need for better targeting and more coherence it appears that the implementation of the Guaranteed Minimum Income (GMI) scheme probably contributed to raising the disposable incomes of the more vulnerable, lower income households over the last two years.

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[5] Manison and Savvides, "Towards Sustainable Growth: Rebuilding the Foundations of the Cyprus Economy", John Deutsch International Development Discussion Paper, Queen's University, DDP 2016-07. Available at SSRN: https://ssrn.com/abstract=2784802, May 23, 2016.

[6] Ibid p.5.

Making the tax-benefit redistribution system more effective in delivering increased disposable incomes to poorer and "squeezed" middle- level households should focus on reforming the tax system to render it much less regressive. A more progressive tax system benefitting in particular lower income households could include the raising of the individual income tax-free threshold from the present level of €19,100 to at least €22,000 as well as on reducing indirect tax rates such as decreasing VAT rates on food and excessively expensive pharmaceutical products from the present 5% to zero.

Redistributive policies to help middle-level households should be directed not only at preventing their descent into the risk of poverty, but in enabling such households to use their financial resources to contribute to economic growth through investments in the education and healthcare of household members and by the self-employed in business assets. It is noted that HFCS results show that the value of business wealth of self-employed household members, presumably in SMEs, fell by 18.4% to €80,400 between 2010 and 2014. It is recommended that the disposable incomes of middle-level households be raised by reducing individual income tax rates (from 20% to 15% for the possibly new €22,001 to €30,500 income bracket and from 25% to 20% for the €30,501 to €38,800 income bracket), which among other things should assist household's ability to service debt and invest in business assets.

In view of the need for a more progressive income tax rate structure and given that high-income households and wealthier households in Cyprus have been failing to pay their fair share of taxes it would not seem appropriate to recommend any measures to raise their disposable incomes by reducing tax rates on higher incomes, although some persons would argue that lower tax rates could decrease tax evasion. It would be preferable for the Government to greatly intensify its efforts to combat tax evasion by resolutely implementing administrative and legal measures against tax-delinquent households which have the ability to pay so as to substantially raise revenue and offset losses from the above proposed tax reductions. And in view of the removal of the growth-friendly property tax base and the discrimination of the current tax system in favour of wealthy property owners urgent consideration needs to be given to restoring a progressive property tax; indeed, Cyprus is now the only member of the EU without a tax on wealth.

Thirdly, there is a need for policy measures and reforms to induce/enforce households which have the capability of repaying debt to do so. The very high level of NPLs among wealthier households reflect partly weak contract enforcement stemming from lack of administrative capacity, inefficiencies in the court system and related bottlenecks, and an unwillingness to implement the new foreclosure and insolvency tools. This unwillingness in turn can be attributed to a reluctance on the part of banks to foreclose and take on loan collateral at a sizable discount in the absence of a healthy secondary loan market as well as to the intrusion of political factors. Furthermore, in view of the low profitability of banks and their related inability to raise capital from outside they prefer not to call-in loans as this would require the setting aside of considerable amounts of funds for provisioning. To overcome this dire situation strong efforts should be made to reform the judicial system and to remove obstacles such as the virtually unlimited postponements of court hearings and deficient court and administrative capacity that inter alia seriously impede the prompt and effective application of the foreclosure and insolvency frameworks. However, even if such efforts are successful, banks need to be incentivized and have the competence and political support to pursue legal and other action against delaying and defaulting debtors.

But given the huge private debt problem of Cyprus these three broad policy recommendations are hardly likely to have any significant impact in reducing the debt burden of households over the medium-term, especially for those with a very limited capacity to repay. Even with the effective implementation of these recommendations the bottom 20% of households that require around two-thirds of their income for debt servicing would have almost zero chance of meeting their financial obligations. It is noted that Sheila Bair former head of the Federal Deposit Insurance Company in the USA suggested that debt servicing costs on mortgage loans should be limited to 32% of a household's income when discussing the reasonable ability to pay under "normal conditions" [7]. Furthermore, would debt-laden self-employed persons be placed in position where they can repay their debts as well as carry on operating and investing in their businesses?

Hence, there is a need to explore whether there are any other ways, besides extending repayment periods, reducing interest rates and charges, and swapping property for bank debt, which can be more effective in reducing the debt burden of households to manageable levels. Debt obligations can be decreased substantially by lenders writing-off a considerable part of the loans of

[7] Sheila C. Blair, "Fix Rates to Save Loans", The New York Times, October 19, 2007

households, but such a debt restructuring/relief solution in Cyprus with the huge scale of household indebtedness could be extremely costly to the banks, wiping out their capital and reserves in the process. Indeed, bankers understandably do not want to take losses on their bad loans. But as Richard Vague outlines in his latest book[8] such a solution if one-off, specifically targeted, and allowing the lender to spread losses over a long period of say twenty years could deliver substantial reductions in household debt and related NPLs, while mitigating the annual impact of losses on banks. Under such a solution banks would be given dispensation to write off loans over an extended period, say 20 years, instead of in the current year. That is, a bank could agree with a borrower to write-off part of say of a mortgage loan today, but instead of taking the loss in the current year, that bank would take say one-twentieth of that loss in each year. And to provide the banks extra incentive to engage in such restructuring the tax loss benefit could be supplemented with a modest tax credit over the same period.

More specifically for Cyprus it is proposed that banks introduce a debt-relief program over a period of 24 months whereby certain loan principals of households, essentially mortgages for main home residences and business loans for self-employed persons which are non-performing, are partly written- off. The write-offs would result from case-by-case restructuring agreements between banks and borrowers in response to genuine difficulties being experienced by borrowers in keeping current on loan repayments. Rough calculations suggest that loans totaling up to €7.0 billion would be eligible for being partly or fully written-off under such a program. And if write-offs averaging 50% of these loans were effected then banks would incur losses up to €3.5 billion. Agreement with the authorities, presumably the regulatory arm of the ECB , would be needed to allow these losses to be spread over say 20 years. This would mean that such losses could be entered into a deferred loss account for regulatory purposes and written off over 20 years. Only one-twentieth of the losses from write-offs under the program would be included in calculating a bank’s capital and reserves adequacy, that is around €175 million per year. Consideration could be given also to banks receiving more-than-normal or supplementary tax deductions for the annual losses from these write-offs.

While such a program could reduce household indebtedness substantially and help banks retain some semblance of profitability in the face of losses from write-offs as well as saving

[8] Richard Vague, “The Next Economic Disaster, Why It’s Coming and How to Avoid It”, July 15 2016.

considerable legal costs in seeking to recover largely irrecoverable debt, there is still the issue in the Cyprus context of whether households with written-off debt would be willing to service punctually their remaining outstanding debt obligations. Indeed, CBC statistics show that households with restructured debt have and continue to account for a considerable proportion of the NPLs. However, as the foregoing indicates if the problem of weak contract enforcement can be largely overcome there could be a greater likelihood that the households participating in the debt relief program will improve significantly their repayment of remaining outstanding debt.

The HFCS results for Cyprus clearly indicate that a significant part of the very large level of NPLs have stemmed from bankers extending loans to households beyond their ability to pay. This in turn has reflected the practice of securing loans with property collateral and personal guarantees rather than properly assessing the borrower's ability to repay loans with future income. To guard against this practice which has placed many households in debt peonage there is a need for a law that obliges bankers and other creditors to make viable loans rather than those which are deliberately or incompetently extended beyond the borrower's loan repayment capability. The principle of such a law should be that if a lender cannot demonstrate that a proper assessment has preceded the extension of a loan which the borrower cannot be reasonably be expected to pay off during the normal course of business or employment, that is, without the forfeiture of property, the loan should be declared null and void, and the debt cancelled. Indeed, this principle is embodied in Article 10 of the Debtor and Creditor Law on "Fraudulent Conveyances" of the state of New York in the USA.

6. Concluding Remarks

The HFCS second wave results indicate that Cyprus households experienced steep falls in net wealth and incomes over the period 2009/2010 to 2013/2014. Despite declining incomes households largely maintained their consumption levels by accumulating more debt and depleting their high level of financial assets. The failure of households to adjust their spending behavior and to reduce their very high indebtedness has resulted in a large number of households being burdened with heavy debt obligations. Even by 2014 it is estimated that the richest 10% of households required 37% of their income to meet monthly debt payments whereas the poorest 20% required over 64%.

Limited data on developments since 2014 indicate that while the declines in household incomes have been halted and may have edged up, the growth of private consumption continues to exceed that of incomes resulting in further dissaving and only very modest progress in repairing household balance sheets with deleveraging. Moreover, the problem of the huge level of private sector indebtedness of both households and non-financial corporations, that poses profound risks for financial stability and economic growth, has not been addressed with sufficient urgency by policy-makers.

Against this uncomfortable background policy recommendations are made on how to raise the disposable incomes of households, particularly of the lower income groups and the "squeezed middle class", and to contribute toward lowering the heavy debt burden of households.

However, policy-makers should be aware that successful efforts and arrangements in inducing and enforcing the repayment of debts by households and in repairing their balance sheets will inevitably reduce private domestic demand over the medium-term and lower economic growth. Accordingly, even greater policy orientation toward boosting net exports as the prime source of economic growth is required, especially through exploiting the enormous potential of the Cyprus tourism sector.

Finally, it can be concluded that complacency in dealing with the festering and overwhelming private debt problem is at best impairing the foundations for the future growth of the Cyprus economy and at worst sowing the seeds for the onset of another financial crisis. Indeed, the very high stock of bank loans to the private sector amounting to 346% of GDP, of which around 50 % are non-performing, raises serious concerns for financial stability as it weighs very heavily on banks' profitability and restricts their ability to raise capital and extend credit to support economic growth.

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Appendix – Tables

Table 1 Cyprus: Wealth Data for the Household Sector (In thousands of euro)

	First Wave (2010)		Second wave (2014)		Change 2010 to 2014	
	Cyprus	Euro area	Cyprus	Euro area	Cyprus	Euro area
Real Assets - medians						
total real assets	313.8	146.3	218.2	136.6	-30.5%	-6.6%
main residence	240.3	180.3	200.0	165.8	-16.8%	-8.0%
other real estate	202.2	103.7	145.2	97.2	-28.2%	-6.3%
business wealth	98.8	30.0	80.4	30.0	-18.4%	0%
Financial assets - medians						
total financial assets	22.1	11.0	15.8	10.6	-28.5%	-3.6%
wealth percentiles						
bottom 20%	4.3	1.2	5.0	0.8	16.3%	-33.3%
middle 40-60%	18.4	11.9	12.7	11.4	-31.0%	4.6%
top 90-100%	130.6	85.2	50.1	101.9	-61.6%	19.6%
Debt- medians						
total debt	60.2	27.3	75.7	28.2	25.7%	26.4%
income percentiles						
bottom 20%	29.5	5.0	27.0	6.8	-8.5%	13.6%
20-40%	50.0	8.0	112.7	8.1	125.4%	1.3%
40-60%	51.9	15.0	52.4	17.0	1.0%	13.3%
60-80%	74.3	29.9	77.0	37.0	3.6%	23.7%
80-90%	78.2	50.6	142.0	61.5	81.6%	21.5%
90-100%	104.9	78.1	123.1	89.6	17.3%	14.7%
Net wealth-medians						
total net wealth	266.9	108.3	170.1	104.1	-36.3%	-3.9 %
wealth percentiles						
bottom 20%	7.6	1.2	1.3	1.0	-82.9%	-16.7%
20-40%	127.3	26.6	74.3	24.7	-41.6%	-7.1%
40-60%	267.5	108.3	171.1	104.1	-36.0%	-3.9%
60-80%	510.2	229.8	309.4	218.3	-39.4%	-5.0%
80-90%	980.1	389.8	589.4	379.3	-39.1%	-2.5%
90-100%	2421.7	760.8	1384.4	743.9	-42.8%	-25.8%

Source: Eurosystem's Household Finance and Consumption Survey (HFCS), first wave and second wave statistical tables.

Table 2: Cyprus-Household Income and Consumption Data (In thousands of euro, unless otherwise specified)			
	First Wave 2009/10	Second Wave 2013/14	Change 2009/10 to 2013/14
Household gross incomes[9]			
- by wealth percentiles			
all	**32.3**	**22.7**	**-29.8%**
bottom 20%	**17.7**	**14.3**	**-19.2%**
20-40%	**26.5**	**18.0**	**-32.1%**
40-60%	**32.8**	**20.2**	**-38.4%**
60-80%	**42.3**	**29.1**	**-31.2%**
80-90%	**48.8**	**37.1**	**-24.0%**
90-100%	**66.6**	**48.5**	**-27.2%**
Household equivalised incomes			
-by income percentiles			
all	**16.99**	**13.79**	**-18.8%**
bottom 10%	**7.48**	**5.79**	**-22.6%**
10-20%	**10.25**	**8.08**	**-21.2%**
20-40%	**13.17**	**10.23**	**-22.3%**
40-60%	**16.99**	**13.78**	**-18.9%**
60-80%	**21.58**	**18.39**	**-14.8%**
80-90%	**28.24**	**24.34**	**-13.8%**
90-100%	**39.19**	**35.37**	**-9.7%**
Household consumption			
(in euro)	**14,735**	**14,240**	**-3.4%**

Sources: Eurosystem's Household Finance and Consumption Survey (HFCS), first and second wave statistical tables for household gross incomes by wealth percentiles; Cystat for household equivalised income and consumption per capita data.

[9] Because of different definitions of and different reference periods as between the HFCS and Cystat for household income, the two sets of estimates, are not comparable. The reference years for income reported by the HFCS are the 12 months preceding the periods of the field work (for example, 02/14 to 07/14 for the second wave for Cyprus), whereas the reference years for the Cystat household income and consumption estimates are 2010 and 2014.

Table 3: European economies – Selected Adjustment Indicators for the Household Sector (in percent)

Household saving to income[10] ratio	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Cyprus	6.7	6.4	3.6	-3.3	-7.9	-5.7
Spain	10.1	10.8	8.6	9.7	9.0	8.2
Ireland	12.2	9.5	11.8	10.3	10.9	10.7
Portugal	9.2	7.5	7.7	7.8	5.1	4.4
Euro area (19 countries)	13.2	12.8	12.3	12.5	12.5	12.3
Household debt to income ratio						
Cyprus	169.8	174.5	182.9	195.5	203.0	196.6
Spain	131.1	126.2	125.4	119.4	112.8	107.1
Ireland	206.0	205.7	194.0	189.1	171.5	153.0
Portugal	125.3	127.2	126.3	121.9	118.5	112.8
Euro area (19 countries)	97.8	97.4	96.9	95.6	94.7	94.1

Source: Eurostat for household saving to income ratio and household debt to income ratio data.

[10] Income is gross disposable income adjusted for the change is the net equity of households in pension fund reserves.

Table 4: European economies – Household debt service to income ratio - medians (in percent)

Household debt service to income ratio[11] -medians	First Wave 2010		Second Wave 2014	
	All	Bottom wealth 20%	All	Bottom wealth 20%
Cyprus	25.0	23.1	35.7	64.1
Spain	19.9	23.7	19.1	24.2
Portugal	19.8	22.5	16.2	20.9
Euro area (19 countries)[12]	14	10.5	13.5	10.1

Source: Eurosystem's Household Finance and Consumption Survey (HFCS), first wave and second wave statistical tables for household debt service to income estimates.

[11] Monthly debt service among households with debt payments calculated as a ratio household to gross monthly income.

[12] Ireland not included in first wave of HFCS; therefore, only results for 18 countries averaged.

Table 5: Selected Indicators on Middle Quintile Net Wealth Households
(in thousands of euro, unless otherwise specified)

	First Wave (2010)				Second wave (2014)			
	CYP	ESP	PORT	Euro Area	CYP	ESP	PORT	Euro Area
Total real assets	282.7	184.2	83.3	112.4	178.5	162.9	75.3	107.0
Total financial assets	18.4	5.7	5.1	10.9	12.7	7.4	6.0	11.4
Total liabilities	55.7	32.4	42.6	49.8	58.7	37.0	42.4	51.1
Net Wealth	267.5	182.7	78.8	108.3	171.1	159.7	71.3	104.1
Household gross income	32.8	22.6	14.9	27.5	20.7	22.2	14.8	27.7
Debt service to income (in percent)	19.3	21.5	23.6	18.0	27.2	18.5	15.4	16.7
Ability to save[13] (percentage of households)	19.0	28.4	18.9	39.5	17.6	32.0	34.1	46.1

Source: Eurosystem's Household Finance and Consumption Survey, first wave and second wave statistical tables.

Reference periods for household gross income are the 12 months preceding the period of the field work for the first wave (e.g. 04/2010 to 01/2011 for Cyprus) and for the second wave (eg.02/2014 to 07/2014 for Cyprus).

[13] Ability to save is the percentage of households who have income exceeding regular expenses.