

Debts of Cyprus Households: Lessons from the First Cyprus Survey of Consumer Finances*

Michael Haliassos,^{a,b} Christis Hassapis,^{a,b} Alex Karagrigoriou,^a
George Kyriacou,^c Michalis C. Michael,^{a,d} and George Syrighas^c

March 22, 2003

Abstract

This paper describes participation of Cyprus households in various debts using data from the first (1999) Cyprus Survey of Consumer Finances. It complements our previous paper that described household participation in various types of assets (Haliassos et al., 2001). Debts considered encompass personal unsecured loans, including credit card debt, and loans secured by housing collateral, mainly mortgage debt. Findings are of policy interest, as they show the extent of household participation in various loans, and the indebtedness of various demographic groups. We document considerable popularity of credit cards as borrowing instruments despite their recent introduction, and a continuing parallel presence of antiquated forms of borrowing (informal store credits). There is surprisingly limited use by the young of mortgages, despite very high homeownership rates, and of car loans, despite high car ownership rates. We find evidence of considerable reliance on family transfers for the financing of education, home acquisition, and car purchase by the young. Particularly problematic for equality of opportunities is the limited ability of the young to take student loans and the reliance on their parents to do so in order to finance their post-secondary education. Finally, we have noted a tendency of Cyprus business owners to take out large loans from their business for personal use.

* **Author affiliations:** ^aUniversity of Cyprus; ^bHERMES European Center on Computational Finance and Economics, University of Cyprus; ^cCentral Bank of Cyprus; ^dCyprus Stock Exchange. The first Cyprus Survey of Consumer Finances was funded by the Central Bank of Cyprus. Details on the project are to be found at <http://www.econ.ucy.ac.cy/~echalias/survey.html>. We are very grateful to numerous experts who provided advice, especially at early stages of designing the Survey. These include Rob Alessie, Carol Bertaut, Evros Demetriades, Luigi Guiso, Michael Hurd, Arie Kapteyn, and Martha Starr-McCluer. We are indebted to Arthur Kennickell of the Federal Reserve Board for continuous and thoughtful advice and feedback during the construction of the Survey. Georgia Antoniou provided excellent research assistance in preparing the data tabulations used in this paper. We express our thanks to Nicholas Papachrysostomou who provided valued research assistance in designing the survey questionnaire. Haliassos acknowledges partial research support by HERMES, the European Center on Computational Finance and Economics at the University of Cyprus. The views presented here do not necessarily represent the views of the Central Bank of Cyprus.

1. Introduction

The issues of access to loans and of the extent of debt burden among households receive considerable attention by politicians, policy makers and economists alike. These issues are pivotal for monetary policy transmission and for the contribution that the financial sector makes in promoting welfare. Despite their importance, discussions of such issues in Cyprus have always been hampered by lack of household-level data that can help uncover differences across demographic groups. This paper uses household-level data from the Cyprus Survey of Consumer Finances (CySCF) that fills this previously existing gap.

The first Cyprus Survey of Consumer Finances (CySCF) was conducted in 1999 in the context of an ongoing joint project between the University of Cyprus and the Central Bank of Cyprus. The Survey provides a comprehensive source for assets and liabilities of Cyprus households, both financial and real. Financial assets include liquid accounts such as checking and saving, government bonds, other bonds (mainly corporate), stocks, retirement accounts, and the cash value of life insurance. Real assets include the primary residence, other real estate that could be used for investment purposes, equity in businesses, and vehicles. Liabilities include consumer and student loans, credit card balances, mortgages, and loans for real estate that can be used for investment purposes. A main strength of the Survey is that it combines portfolio data with information on demographic characteristics of each household, and on its attitudes towards borrowing, lending, risk taking, liquidity, and related matters.

Interest in the Cyprus SCF is enhanced by the fact that Cyprus is the only country outside the financially developed core that possesses such a detailed survey of household portfolios. Surveys of this kind can be used for studies of numerous aspects

of financial behavior relevant to academics, policy makers, and financial practitioners. Examples of what can be done, along with a description of the main methodological tools and issues, are to be found in Guiso, Haliassos, and Jappelli (2002a, b).

This paper is a follow-up of our 2001 study of household participation in various types of assets based on the first CySCF. While that paper focused on assets, the current paper examines participation of Cyprus households in various debts and the extent of household indebtedness in 1999. With reference to household liabilities, the CySCF covers non-housing loans (such as consumer loans, revolving debt on credit cards, and student loans), as well as housing loans (mortgages and loans on secondary properties).

In reading this paper, one should bear in mind that the year in which the data were collected, 1999, was one of widespread euphoria about the newly established Cyprus stock market and its prospects. After a drop of the Cyprus Stock Exchange (CSE) General Index by 6.23 percent in 1997 and a moderate increase by 18 percent during 1998, the CSE General Index shot up by 688 percent during 1999.¹ This spectacular upward movement was followed in the subsequent year by a 65 percent drop in the index. Average daily volume in 1999 was at approximately 17.5 million Cyprus Pounds, more than twelve times its average in 1998 and seventy percent of the average in 2000. Numerous households entered the stock market for the first time, and direct plus indirect stock market participation by households reached the fifty percent mark during 1999 (see Haliassos et al., 2001).

Although this paper focuses on debts rather than on assets, one should bear in mind that some households took out loans in 1999 to buy equity, but these were

misrepresented as loans for other purposes in order to evade a Central Bank circular to commercial banks discouraging them from financing the purchase of stocks through loans.² Although this factor is likely to have promoted indebtedness for some households compared to a “normal” year, the spectacular capital gains that were observed in 1999 must have also enabled other households to finance their needs and pay off some of their loans through liquidation of stocks. Thus, it seems likely that the 1999 figures, besides being interesting in their own right as describing behavior in the midst of the stock market bubble, are also a useful gauge to the overall picture of indebtedness of Cyprus households even in less abnormal years.

In Section 2, we present a brief description of the CySCF. The third section focuses on non-housing loans, especially consumer loans (including credit cards), student loans, and loans taken out from one’s business. The fourth section analyzes housing loans, mainly mortgages. Section 5 provides brief concluding remarks.

2. Brief Description of the Survey

Early expert advice on construction of the Survey was provided to the University of Cyprus-Central Bank of Cyprus team by a group of international experts in household-level surveys of this type, in the context of a conference on Household Portfolios held in Cyprus in the Fall of 1996. The preparation of the survey questionnaire, the statistical design of the survey, the training of interviewers, and the preparation of software for data entry took place between 1997 and 1999. Interviews were conducted between April 1999 and February 2000, with most interviews taking

¹ The Cyprus Stock Exchange launched its official operations on March 29, 1996 in accordance with the Cyprus Stock Exchange Laws and Regulations passed by the House of Representatives in 1993 and 1995.

place during the second half of 1999. Data refer to 1999, except for incomes that are reported on an annual basis and refer to the previous year (1998), as is standard practice in surveys of this kind.

The Survey contains responses from 1,097 households living in Cyprus (excluding occupied territories) in two subsamples. One is representative of the Cyprus population and consists of 539 households, while the second is confined to wealthy households and has sample size of 558. The over-sampling of wealthy households is a practice followed internationally in order to handle the highly skewed wealth distribution and the fact that most of the wealth and the greatest variety of assets are held by the wealthy who represent a very small proportion of the population. Since the resulting sample is not representative of the population, each observation in the sample has been weighted by appropriate population weights, and statistics reported in this paper are weighted so as to reflect behavior of the Cyprus household population. Details on the statistical design of the Survey, which is based on area probability multi-stage sampling techniques, can be found in Karagrigoriou and Michael (2001).

The Survey questionnaire is divided into sixteen chapters. It combines and adapts elements from the United States Survey of Consumer Finances with some input also from the CentER Survey in the Netherlands. It is further augmented to ensure coverage of issues topical to Cyprus, such as the highly important insurance sector and household property in the currently occupied northern territories. The interviewing mode resembles the data collection process in the United States (prior to

² Perhaps the issue of misrepresentation is no more than semantics: households that chose to buy stocks in amounts larger than they could afford ultimately had to obtain personal or other loans to finance their consumption and personal needs.

laptop-based interviews) rather than the on-line interactive approach taken by the Netherlands survey.³

The response rates in the two subsamples were both high and similar (81 and 80 percent for the representative and for the wealthy subsample respectively). The high response rates are attributable to the conscientiousness of interviewers, mostly drawn from University of Cyprus undergraduates or recent graduates, and to the readiness of Cyprus households to participate in a Survey directed by the premier institution of higher education in the country after they were clearly informed about the Survey's purpose and objectives.

3. Non-housing loans

3.1 Household Participation

Table 1 presents a breakdown of participation of Cyprus households in loans of all types, excluding housing loans that will be discussed in Section 4 below. In general, non-housing loans include consumer loans, revolving credit card debt,⁴ student loans, personal debts taken out from one's business, and other debts. As shown, almost 40 percent of Cyprus households have at least one type of consumer loan in 1999, excluding credit card debt, a figure that is close to but slightly below the participation in such consumer loans in the US (see Aizcorbe et al., 2003). The most popular consumer loan type in Cyprus appears to be car loans (22.3 percent of Cyprus

³ The CySCF interviewing model resembles the United States SCF "paper-and-pencil" mode with similar duration of interview, one visit to each household after an appointment, and discussion with the person in the household that is in charge of finances. The Netherlands approach of distributing laptops to households and asking a small set of questions periodically was impractical in Cyprus and highly likely to introduce significant selection biases in the sample of households that would be willing to participate in the Survey.

⁴ Revolving credit card debt, i.e. unpaid balances on the credit card account, could be included under consumer loans, but we list it separately for additional emphasis.

households borrow to buy a car), followed by utilized overdraft facilities (10.7 percent), and loans to finance the purchase of household items (6.0 percent).

Debit and credit cards are relatively new types of financial instruments in Cyprus. They were introduced in the early 1980s, and their usage grew significantly during the 1990s. According to unpublished Central Bank data, the number of debit and credit cards in issue increased cumulatively by about a fifth-fold between 1990 and 2001, reaching almost 350,000 credit cards and nearly 215,000 debit cards by the end of 2001⁵. These data also reveal that the value of transactions using credit and debit cards increased by 24 times in the same period, amounting to more than 570 million Cyprus Pounds by the end of 2001, or almost 10 percent of GDP. About three quarters of households that had bank-type credit cards (Visa or Mastercard) held one card, whereas one in five credit card holders had two different cards.

A notable proportion of the population have adopted the practice of not paying off credit card balances but instead revolving credit card debt, despite the fact that credit card borrowing is a relatively recent option for Cyprus households. Such borrowing has attractive features, basically because it requires no collateral and no extra applications and paperwork for credit card holders. The overall percentage of Cyprus households that carry a credit card is estimated at 41.9 percent, and close to half of credit card holders had outstanding balances on their credit cards in 1999, bringing the population percentage of debt revolvers to slightly above 20 percent. By comparison, in the United States where credit cards have been in use for much longer,

⁵ These data refer to the number of credit cards issued to individuals and not to the number of credit card accounts per household, as is the case in the CySCF. For instance, in the case of a couple with two credit cards linked to a joint account, the above data would include two observations. In contrast, in the CySCF this case would be counted as one observation.

44.1 percent of households had outstanding card balances in 1998 (Aizcorbe et al., 2003).

The difference in the proportion of credit card debt revolvers in Cyprus versus the US is almost entirely attributable to the less widespread access of households to credit cards in Cyprus, and not to a more limited tendency of Cyprus credit card holders to revolve debt on their cards. If we focus on bank-type credit cards (such as Visa and Mastercard), about two thirds of US households carry such cards compared to 41.7 percent in Cyprus, but slightly above half of US households use their credit cards as a means of borrowing (Bertaut and Haliassos, 2001), compared to just under half in Cyprus. Thus, debt revolving among bank credit card holders is almost the same in Cyprus and in the US, suggesting that increased access to credit cards among the Cyprus population is likely to induce sizeable future increases in the proportion of credit card debt revolvers in the population.

It should be noted that 1999 was a year during which the statutory ceiling on lending interest rates was still in effect in Cyprus.⁶ It may be argued that, with the removal of this ceiling in 2001, future credit card rates are likely to diverge from those on other types of loans, and this may temper the tendency of Cyprus households to borrow on their credit cards. First, we should note that even when the ceiling was effective, credit card balances were often charged with other fees and commissions, so that a higher effective interest rate was paid than on other unsecured loans. Second, although it is conceivable that further widening of the gap between effective interest rates on credit cards and on other loans could discourage some credit card debt revolving, the US experience has been one of substantial credit card debt revolving in

the face of huge interest rate differentials. At the end of the 1990s, revolvers of credit card debt in the United States had to pay median interest rates of the order of 15 or 16 percent, significantly larger than those on consumer loans, yet this did not prevent half of US credit card holders from revolving debt. Indeed, a large proportion of those who revolved debt in the US had substantial holdings of low-return liquid assets that could have been used to pay off the high-interest credit card debt (see Bertaut and Haliassos, 2001).

Despite the familiarity with credit cards and their various uses, one finds in Cyprus a continuation, albeit to a limited extent, of the old practice of informal store credits managed by store owners and recorded in unofficial books. We find that 3.6 percent of Cyprus households have outstanding balances with at least one of their favorite stores, bookkeeping and repayment of which are mainly based on social trust.

Student loans are important for any country that wants to promote equality in educational opportunities and to foster human capital accumulation as an engine of economic growth. Only about 8.5 percent of households in Cyprus have this type of loan, despite large enrolment figures for higher education in Cyprus and abroad.⁷ Perhaps more alarming than the limited usage of such loans is the age distribution of those responsible for making payments on these loans, as will be seen below.

Finally, 11 percent of households in Cyprus have personal loans from their own businesses. Use of the resources of one's business in order to help finance personal needs is a reflection, in part, of the family-oriented structure of the numerous

⁶ The ceiling was in place up until January 1st 2001, when it was abolished by the Central Bank. Originally, the ceiling was set at 9 percent. In 1994, the ceiling was administratively lowered, to 8.5 percent and then to 8 percent, but credit card accounts were excluded from this reduction.

⁷ According to "Statistics of Education" (1999/2000), during the school year 1999/2000 nearly 69 percent of the total secondary school leavers continue their studies beyond the secondary level. About 41 percent of school leavers attend higher educational institutions abroad and the other 28 percent attend higher educational institutions in Cyprus (p.14).

small firms on the island. The substantial size of these loans, reviewed below, suggests that this practice should not be ignored.

3.2 Age Distribution of Borrowers

There are differences not only in participation rates among the main categories of non-housing loans, but also in the extent of participation among different age groups. Such differences result from the interplay of factors affecting household choices and of those affecting decision making of financial institutions granting the loans. The age distribution of non-housing loans, excluding credit cards, is presented in Table 2. Credit cards are dealt with in Table 4.

As shown in Table 2, the age distribution of consumer loans peaks at ages 30 to 39, when slightly more than half of Cyprus households have at least one consumer loan. Households under 30 exhibit the second largest participation rate, while from 40 years on participation in consumer loans gradually drops. In all loan categories, participation of households older than 70 is low. This is probably attributable to their more limited consumption needs and investment plans that can be met out of already accumulated assets. The limited number of elderly people who do need to borrow may also face some difficulty in securing a loan at such advanced stages in their life cycle.

Within consumer loans, greatest participation in utilized overdrafts is observed among households with heads between 40 and 49 years, but even then it is under 15 percent of households, despite the ease with which such loans can be taken out once access to overdraft facilities has been granted. This, along with the higher participation rates in other loans, suggests that young households in Cyprus may be facing some supply-side constraints in obtaining overdraft facilities. This conjecture is

supported further by noting that, if banks gave young households equal access to overdraft facilities as older households, we should observe higher participation rates in the youngest age category, as young people are the individuals most likely to want to borrow and least likely to have accumulated enough assets that would enable them to undertake secured loans.

Unlike unsecured overdraft facilities, car loans are secured by using the purchased car as collateral for the loan, thus eliminating the need for having other collateral. Participation in these secured loans is indeed highest among those below 40, hovering at about 30 percent of households. Indeed, as Table 3 shows, car ownership is very widespread in Cyprus, and it is not surprising that the need to purchase a car motivates so many households to borrow.⁸ The strong preference for car ownership is related to the achievement of rapid income growth in recent years, as a result of which, by the year 2001 income per head in Cyprus averaged between 80 and 85 percent of the EU average. Around 95 percent of households with heads aged up to 50 own at least one car. Car ownership then drops to 90 percent in the next two age categories, but remains at just under 50 percent even among those aged 70 and above. The rather limited public transportation system contributes to such high levels of car ownership but also partly results from it.

It is also noteworthy that although 95 percent of households belonging to the age bracket of below 29 own a car, only about 30 percent of household heads in this age bracket have a car loan. This suggests that parental gifts (monetary or in kind, in the

⁸ Car ownership was always relatively high in Cyprus. Nevertheless, it increased significantly since the mid 1990s as changes in car market regulations in Cyprus that took place in 1993 allowed for the importation of used cars of only two years or older. This exerted significant downward pressure on the prices of both new and used cars and led to increases in quantity demanded, particularly of used cars. Car registrations between 1992 and 1998 increased by more than 22.0 percent. In 1992 about 7.2 percent of registered cars were used, whereas in 1998 the corresponding share surged to about 72

form of used cars) may be playing an important role, reducing the need for young households to apply to banks in order to finance the purchase of a car.

The importance of family ties is clearer when looking at the age distribution of student loans. Participation in student loans is extremely low in the prime ages for education, but it peaks in the 50 to 59 age range, while it is also fairly high in the two adjacent age categories. Given the young age at which Cyprus men and women tend to marry, participation in loans is high when children in the household have come of age to attend institutions of higher education. Student loans are taken out by parents, who also pay installments on them. These figures point clearly to the tradition of family support for post-secondary education, considerably encouraged by the institutional restrictions that limit the ability of young people to take out student loans themselves.

This practice should be contrasted to the United States, where students themselves pay off the loans after they graduate and secure a job. The US government has established an elaborate system of loan guarantees, designed to ensure that banks are willing to assume the extra risks of administering loans directly to students currently without jobs, as opposed to conditioning on the financial profile of the parents. The adoption of such systems promotes equality of opportunities among students of different backgrounds, as well as self-reliance and independence of young people in the pursuit of a satisfying career.

The age pattern of student loans also has important implications for the degree of intertemporal consumption smoothing undertaken by parents. It indicates that parents tend to take out loans when the time comes to pay for their child's education instead

percent. By 1999, the percentages of Cyprus households owning one, two, or three cars in 1999 were 31.7 percent, 46.5 percent and 10.5 percent, respectively.

of saving prior to the occurrence of this predictable event or of liquidating wealth accumulated up to then. This seems to point to lack of foresight on the part of parents, or to ease in securing a loan so as to avoid liquidating accumulated wealth, or both. Some of the accumulated wealth is bound to find its way to the children after they get married (e.g. in the form of a house or other property) or after the parents' death.⁹

Let us now turn to the practice of taking out loans from one's business in order to support one's personal needs. The age distribution of personal debts from business reveals that this practice is much more widespread in the 30 to 49 age categories than in any other. These are the older two of the three categories for which participation in consumer loans is also at its maximum. The youngest of the three such categories, i.e. households of 20 to 29 years, are less likely to have built their own business yet. These findings suggest that the practice of taking out loans from the business is an important way for relieving borrowing constraints and of avoiding high bank interest rates among middle-aged Cyprus households.

Table 4 shows the age distribution of households carrying various types of credit cards and of those revolving debt on those credit cards. Age groups up to 49 years exhibit the highest participation rates for the most important type of credit card, namely bank credit cards, hovering around 50 percent. Older groups exhibit lower participation rates, though these are by no means negligible: almost one fifth of households above seventy hold Visas or Mastercards.

We can think of three potential reasons behind this observation: First, a cohort effect or demand-side factor, namely, the unfamiliarity of older people with the

⁹ These findings on the importance of family ties are in line with the overall tendency of parents in Cyprus to financially contribute to their children's expenses long after they turn 18. As pointed out in Haliassos *et.al.* (2001), nearly 60 percent of households in Cyprus receives an inheritance or gift, while about one third of individuals (or household heads) of age between 18 and 29 live with their parents.

technologically relatively advanced concept of credit card payments because it did not exist when they were young. Second, a supply-side factor, namely, the more limited willingness of financial institutions to lend to older people without collateral; and third, another demand-side factor, namely the fact the elderly tend to have more limited transactions needs than their younger counterparts and thus less use for credit cards. The low participation of households above seventy in the case of debit cards as well as credit cards renders additional support to the limited familiarity and transactions needs explanations.

Despite the varying familiarity of different age groups with credit cards, the proportions of credit card debt revolvers among those who do hold cards are remarkably stable at around 50 percent across most age groups. Exceptions are the youngest category and those in the 50 to 59 category. Thus, the practice of revolving credit card debt is quite widespread and not confined to a particular age group.

Turning to the distribution of informal store credits, one notes that participation rates are low but roughly similar across age groups. Thus, the overall participation rate in informal credits reported earlier transcends age barriers and does not result from the perseverance of older segments of the population in an antiquated practice.

For completeness, Table 4 also lists participation rates in debit cards, which are equivalent to credit cards for purchases but do not allow revolving of debt. About a quarter of the population have such debit cards, while the frequency of debit card holders is strictly declining with age: one third of the youngest households (age below 29) hold a debit card, whereas sequentially lower ratios are recorded for subsequent age brackets up to 59 years. Older households do not appear very familiar with this financial instrument, as indicated by the low participation rates for those above 60

years of age. The overall limited participation in debit cards suggests that Cyprus households regard them as substitutes mostly for cash and checks rather than for credit cards. Indeed, some households may be concerned that debit card transactions are more easily “traced” by tax authorities than cash transactions or even some check transactions. The higher observed participation rates in credit rather than in debit cards suggest that those who appreciate the ease of making transactions with credit cards also appreciate the option to revolve debt on them, even if about half of them do not end up exercising it.

Finally, Table 5 shows the representation of each age group in the category of holders of credit cards or informal store credits. For any type of card, the vast majority of credit card holders come from the age groups 30 to 49. The majority of households with informal store credits is slightly older, from 40 to 59, but close to 30 percent of those with such credits are less than 39 years old. Informal store credits are a limited but by no means dying practice.

3.3 Loan Size Distribution

Table 6 presents the distribution of the sizes of non-housing loans by the amount originally borrowed. The bulk of consumer loans, almost 53 percent, lie between £1,000CYP and £10,000CYP. The average amount borrowed in the form of a consumer loan is slightly above £12000¹⁰. Predictably, most vehicle loans are in the range between CYP 1,000 and CYP 10,000, although 11 percent of car loans exceed ten thousand pounds, possibly to finance luxury cars or multiple cars.

Interestingly, most student loans taken out by parents are quite sizeable, in the range between five and twenty thousand Cyprus Pounds, while more than 10 percent

of households end up borrowing sums in excess of CYP 20,000 to finance the education of their children. The mean of the distribution of student loans amounts to just below £15000. Thus, despite the relatively limited use of student loans and the tendency of parents to take these loans to finance their children's studies, we observe that parents who do borrow do so in large amounts, rather than so as to smooth their consumption marginally. While this may be due in some instances to lack of foresight on the part of parents, it is also often attributable to ease of borrowing relative to liquidating accumulated wealth, especially for household categories facing preferential loan terms (e.g., bank employees).

As perhaps expected, personal debts from business are also sizeable: those who dip into the pockets of their business to finance their personal expenditures, tend to do so in a substantial way. About 42 percent of loans from business exceed CYP 20,000¹¹, with the average such loan amounting to more than CYP 92,000. Such large figures may have resulted from the confluence of various factors. First, there is a tax-reducing incentive to treat profits from one's own company as retained earnings rather than as distributed earnings. Second, credit ceilings that were in effect prior to 2001 may have prevented some entrepreneurs from borrowing more for their personal use. Third, the stock market boom may have encouraged some to borrow funds from their business in order to invest in the stock market, given Central Bank restrictions on bank loans for this purpose. All in all, the large size of these loans seems to reflect a tendency among owners of small businesses to mix up their business with their personal finances.

¹⁰ Within the category of consumer loans, the average car loan amounts to almost £7000CYP.

¹¹ In fact 13.6 percent lies within the range of £20001-£40000, 6.2 percent in £40001 - \$60000, 2.9 percent in £60001 - \$80000, 5.8 percent in £80001 - \$100000, and 13.7 percent above \$100001.

The figures in table 6 relate to amounts originally borrowed, but not necessarily to the overall debt burden in 1999, as they do not show what proportion of original loan amounts remains outstanding. The distribution of non-housing loans still outstanding in 1999 is presented in table 7. For consumer and student loans, the two categories for which there are data both for amount borrowed and for outstanding balances, mean outstanding balances are of the order of CYP 8,300 and CYP 11,200 respectively, suggesting substantial indebtedness.

The majority of households revolving credit card debt do so for amounts not exceeding CYP 1,000. Virtually all of the rest revolve between 1,000 and 5,000 pounds, largely a reflection of small borrowing limits set by card issuers. The average level of credit card outstanding balances was about CYP 973, while the median was around CYP 600. Thus, although the practice of credit card debt revolving is quite widespread among holders, it seems to be intended mostly for consumption smoothing and not as a means of financing major purchases.

3.4 Participation by Income Class

Table 8 shows how participation of households in various types of non-housing loans differs across income groups. Interestingly, this table shows that the majority of all but the lowest income classes have some form of non-housing loan, and that participation grows with income class.¹² Since, other things equal, higher-income households are less likely to need loans, this positive relationship should be attributed to supply-side reasons, namely to the use of income by banks as a screening device for loan applicants and to the lower credit risk associated with lending to the wealthy.

Closer inspection of the table reveals that this clear pattern is present for consumer loans, but not for other types of loans. Not surprisingly, student loans are not as widespread among the highest-income group as they are for the middle class, but they are not negligible, either: indeed, the wealthiest group has the second highest participation rate in student loans, probably because they have a greater tendency to send their children abroad and to face very high tuition and living costs. Finally, the wealthy have the greatest participation in personal debts from their own business, primarily because business ownership is more widespread in this income category.

4. Housing Loans

We next turn to loans for purchases of the primary residence or of secondary properties, including vacation homes. There is a long tradition in Cyprus of owning rather than renting the primary residence of the household. Indeed, most households own homes rather than apartments (condominiums), primarily because population densities are low even in the main cities. This preference for homes is slowly changing as cities (especially the capital, Nicosia) grow bigger and households start to perceive a tradeoff between living in a house but spending more time to commute versus living in an apartment that is much closer to work. Table 9 presents a breakdown of Cyprus households by their type of primary residence. Only 6.5 percent of households live in rented apartments. A staggering 86.1 percent own a home, with the vast majority (78.1 percent) owning a house rather than an apartment (condominium).

¹² It should be noted that income imputations for missing income data are not used in this table. However, if imputed income is used to eliminate missing observations on this sensitive variable, the overall picture does not change.

The large incidence of homeownership by international standards has been discussed in Haliassos et al. (2001), and is primarily a product of the pride in homeownership felt by most Cypriots coupled with the historically limited variety of alternative saving assets and the intensity of motives for bequeathing housing wealth to descendants. We should also note that, in view of the 1974 Turkish invasion and occupation of a large part of the island, there are two additional types of residence, specifically for refugees displaced from their homes in the occupied North. One option is to live in a residence of a Turkish Cypriots no longer occupied by them following the separation of the two communities. A small 1.5 percent of households live in such a residence. A larger 6 percent live in apartments specially built by the government for refugees.

Despite widespread homeownership, there is very limited incidence of housing loans. Table 10 shows that only a minority of 41 percent have or had in the past a mortgage on their primary residence. The rest (excluding those in refugee housing) either bought their home or received (at least part of) it as a gift or bequest from their parents. This is additional testimony to the importance of intergenerational links in Cyprus.

The age distribution of households that currently have a mortgage (or previously had one that is now paid off) is hump shaped. Fewer than 30 percent of households under 30 years old have or had a mortgage, but the proportion peaks at 52.2 percent for the 40-49 age category. It is sizeable (above 40 percent) for the two adjacent age categories. The figures seem to suggest that young households tend to live initially in homes provided by their parents, but then often move to bigger homes financed partly through mortgages. Indeed, the distribution would peak much earlier

if young households had to finance purchase of their primary residence on their own. This process of upgrading appears to occur at different points during working years, depending on the individual circumstances of each household, and this spreads participation in housing loans across the age spectrum.

Also shown on Table 10 is the incidence of a potentially more problematic practice, namely the mortgaging of property in order to obtain loans for other purposes. A total of 27 percent of Cyprus households finance various purchases but probably also necessary expenditures, such as those associated with the education of their children and with medical emergencies, by using their property as collateral. This tendency peaks in the 40 to 60 age groups, partly because they are more likely to have accumulated real collateral and partly because they are likely to be parents of children planning to embark in University or other high-level professional studies. Other age groups, from the very young to those up to age 60, also exhibit this practice, with participation rates in excess of 20 percent.

Finally, a much smaller percentage (5.6 percent) of households have loans for their primary residence other than the mortgage. These are mostly loans taken out to renovate or expand the house. There is a dramatic peak in participation in the 30 to 39 age group. Presumably, these are mostly people who decide to renovate or expand homes acquired by them through purchase or bequest, in order to upgrade their dwelling or to accommodate an expansion in the size of their household (e.g., with the arrival of children).

Table 11 gives a picture of current household indebtedness in mortgages and supplementary loans, by reporting not amounts originally borrowed but those still outstanding. Only about a quarter of Cyprus households declare mortgages

outstanding. About 10 percent still owe sizeable amounts, namely more than CYP 20,000. For smaller sums, percentages fall with the size of mortgages outstanding. Indebtedness in supplementary loans appears to be of trivial importance, as only 2.5 percent of Cyprus households declare having such loans outstanding.

Table 12 focuses on households that have or had mortgages or supplementary loans, and describes the distribution of loan amounts among those. The first column shows that half of those owe large amounts, in excess of CYP 10,000. Twenty percent of the group have paid off their mortgage, while the remainder owe smaller amounts. One third of the few households with supplementary loans still owe between CYP 1,000 and CYP 10,000, while two thirds had originally borrowed large amounts, in excess of CYP 10,000, presumably for extensive renovation or expansion. Thus, supplementary loans seem rather unimportant from the point of view of the entire economy, but may be sizeable for many of the households that do have them.

Table 13 shows that about one third of Cyprus households have secondary property, such as a vacation home. Just under one third (31.7 percent) of Cyprus households partly own the reported secondary property. For a very small minority, this property belongs entirely to a business, while for slightly more it partly belongs to a business. Few Cyprus households (only 5.3 percent of the population of households) have loans on secondary properties, representing just over 16 percent of owners of such properties. Thus, indebtedness on secondary properties is hardly noticeable: Cyprus households seem to acquire such properties only when they can afford to do so without assuming debt (e.g., when they receive their retirement bonus); or they tend to cover residual needs for funds by mortgaging their primary residence. Table

14 also shows that households with mortgages or loans do not tend to have more than one such mortgage or loan outstanding.

Finally, Table 15 shows participation in housing loans and the presence of such loans outstanding for various income categories. Interestingly, those who tend to obtain mortgages or loans in larger frequencies are not the neediest groups in the income distribution, but the well-to-do households. While many of the poorer households stay in the houses provided to them through gifts or bequests, richer households presumably take out these loans in order to acquire luxury homes or secondary properties. Banks have every reason to grant such requests, given the financial health of the applicants.

5. Conclusions

In this paper, we have estimated and reported participation of Cyprus households in various types of loans during 1999, and the extent of household indebtedness as reflected in the size distribution of these loans. Participation in loans, both collateralized and unsecured, is widespread and covers the entire age spectrum and income distribution of the Cyprus population.

We have found considerable popularity of credit cards as a means of borrowing despite their recent introduction, and noted the continuing parallel presence of antiquated forms of borrowing (informal store credits) albeit with limited participation. Particularly relevant for human capital accumulation, economic growth and upward mobility in the income distribution is the fact that students rely on their parents to take out student loans in order to finance their post-secondary studies.

Introduction of a system of government loan guarantees would provide banks with the right safeguards and incentives in order to grant loans to students themselves.

Also remarkable is the very limited use by the young of mortgages, despite very high homeownership rates, and of car loans, despite high car ownership rates. While this presumably signals the importance of intergenerational transfers in ensuring that young households have a home and access to a car, it may also partly reflect the tendency of the financial sector to shy away from lending to young households at the start of their careers. Development of loan programs addressed to the young, possibly with government support and encouragement, can have profound economic and social consequences, especially in the era of European Union membership. Finally, we have noted the tendency of Cyprus households to take out sizeable loans from their business for personal use. This may suggest that some entrepreneurs find it difficult to separate business from family matters, but may also signal restrictions in the provision of credit for important family needs or emergencies that make more conventional loans relatively unattractive.

All in all, we have not seen signs of widespread borrowing constraints or of household complaints about inability to borrow. We have found evidence suggesting that this is partly the result of family transfers and support that replace commercially provided loans. It remains an open question whether Cyprus can continue to rely on such informal mechanisms for the financing of its young in the post-accession era. Among many potential concerns, an important one is that such excessive reliance on the financial resources of the parents may interfere with provision of equal opportunities to the nation's young in the highly competitive, knowledge-based European society of the future.

References

- Aizcorbe, Ana M., Arthur Kennickell, Kevin B. Moore, 2003. "Recent Changes in U.S. Family Finances: Evidence from the 1998 and 2001 Survey of Consumer Finances", *Federal Reserve Bulletin*, vol. 89 (January 2003), pp. 1-32.
- Bertaut, Carol C. and Michael Haliassos, 2001. "Debt Revolvers for Self-Control", mimeo, University of Cyprus.
- Guiso, Luigi, Michael Haliassos, and Tullio Jappelli (Editors), 2002a. *Household Portfolios*, Cambridge, MA: MIT Press.
- Guiso, Luigi, Michael Haliassos, and Tullio Jappelli (Editors), 2002b. *Stockholding in Europe*, Hampshire (UK) and New York (USA): Palgrave Macmillan.
- Haliassos, Michael, Christis Hassapis, Alex Karagrigoriou, George Kyriacou, Michalis C. Michael, George Syrichas, 2001. "Assets of Cyprus Households: Lessons from the First Cyprus Survey of Consumer Finances", University of Cyprus Working Paper No. 02-05.
- Karagrigoriou, Alex and Michalis C. Michael, 2001. "The Sample Design of the 1999 Cyprus Survey of Consumer Finances", mimeo, University of Cyprus.

**TABLE 1: Percent of Households with Various
Non-Housing Loans/Debts**

Type of Loan	Borrowers (%)
Consumer Loans, of which	39.5
<i>Overdraft</i>	10.7
<i>Household Items</i>	6.0
<i>Car Loans</i>	22.3
<i>Medical</i>	1.3
<i>Relatives</i>	0.2
<i>Other Consumer Loans</i>	9.5
Any Credit Card Debt, of which	20.1
<i>Bank Credit Cards*</i>	20.0
<i>Store Credit Cards</i>	0.6
<i>Other Credit Cards</i>	0.1
<i>Informal Store Credits</i>	3.6
Student Loans	8.5
Personal Debts from Business	11.0
Various Other Debts	3.2

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.
*Includes Visa and Mastercard.

**TABLE 2: Percentages of Households with Different Types of Non-Housing Loans/Debt
By Age Group**

Type of Loan	Age Group						Total
	<=29	30-39	40-49	50-59	60-69	>=70	
Consumer Loans of which	46.2	50.7	44.5	36.5	22.8	3.1	39.5
<i>Overdraft</i>	9.6	11.9	14.8	8.1	9.7	0.0	10.7
<i>Car Loans</i>	29.8	31.8	23.7	19.5	8.9	2.1	22.3
<i>Other</i>	11.5	10.4	11.2	10.4	4.9	0.0	9.5
Student Loans	2.9	1.2	9.1	20.2	8.9	0.0	8.5
Personal Debts from Business	8.7	14.2	14.5	8.1	6.5	3.1	11.0
Various Other Debts	1.9	2.4	3.3	3.6	4.8	2.1	3.2

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.

TABLE 3: Percent of Households with Means of Transportation, by Age Group

Means of Transportation	Age Group						
	<=29	30-39	40-49	50-59	60-69	>=70	Total
Car(s)	94.2	95.5	97.5	90.9	87.1	48.5	90.8
Other types	10.6	14.2	15.3	14.3	9.7	3.1	13.1

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.

TABLE 4: Participation in Credit Cards, Informal Store Credits, or Debit Cards and Revolving Credit Card and Store Debt, by Age Group

Type of Card	Age Group						
	<=29	30-39	40-49	50-59	60-69	>=70	Total
Bank Credit Cards¹							
Percent carrying card	45.2	48.1	52.4	32.6	27.4	19.6	41.7
Percent of card holders revolving debt	44.7	51.4	49.0	42.0	50.0	52.6	48
Store Credit Cards							
Percent carrying card	2.9	3.0	2.5	1.0	1.6	3.1	2.2
Percent of card holders revolving debt	0.0	30.0	50.0	33.3	0.0	33.3	31.0
Bank, store or other credit cards							
Percent carrying card	47.1	48.1	52.4	32.6	27.4	19.6	41.9
Percent of card holders revolving debt	42.8	51.4	49.0	42.0	50.0	52.6	48
Informal Store Credits							
Percent with store credit	3.8	3.0	4.8	3.9	4.8	0.0	3.7
Percent with store credit that revolve debt ²	100	100	95.8	92.3	100	0.0	97.3
Debit Cards							
Percent carrying card	32.7	29.1	29.0	26.1	11.2	7.1	25.5
Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.							
¹ Bank credit cards include Visa and Mastercard. The percentages of households with only one, only two, or more than two cards are 31.4, 8.2, and 2.0, respectively.							
² All but two of households with store credit accounts have positive outstanding balance.							

**TABLE 5: Representation of Age Groups
Among Holders of Credit Cards or of Informal Store Credits (percent)**

Type of Card	Age Group						
	<=29	30-39	40-49	50-59	60-69	>=70	Total
Bank Credit Cards	8.3	28.5	36.3	17.6	6.0	3.3	100
Store Credit Cards	9.7	32.2	32.2	9.7	6.5	9.7	100
Other Credit Cards	0.0	0.0	50.0	50.0	0.0	0.0	100
Any of the three types of Credit Cards	8.6	28.5	36.1	17.5	6.0	3.3	100
Informal Store Credits	7.8	19.6	37.3	23.5	11.8	0.0	100

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.

TABLE 6: Distribution of Non-Housing Loans by Amount Borrowed

Amount * (Cyprus Pounds)	Consumer Loans %	Of Which Vehicle Loans¹ %	Student Loans %	Personal Debts From Business %
(0, 1000]	5.4	1.5	0.8	1.1
(1000, 5000]	28.0	38.0	16.4	5.9
(5000, 10000]	24.8	48.0	36.3	7.1
(10000, 20000]	19.2	11.0	33.6	17.9
>20000	8.5	1.0	10.4	42.2
Missing, N/A	14.0	0.0	2.5	25.7
Total**	100	100	100	100

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.

*Parenthesis means that the limit is not included; bracket means that the limit is included.

**Figures may not add to 100 due to rounding.

TABLE 7: Distribution of Non-housing Loans by Amount Outstanding

Amount[¶] (Cyprus Pounds)	Consumer Loans (%)	Of Which Vehicle Loans* (%)	Student Loans (%)	Personal Debts from Business (%)	Various Other Debts (%)	Revolving Balance in Credit Card Accounts (%)
(0, 1000]	14.0	15.5	3.5	N/A	32.5	34.3
(1000, 5000]	34.5	63.0	18.9	N/A	18.5	13.6
(5000, 10000]	17.6	15.5	32.0	N/A	13.5	0.1**
(10000, 20000]	12.0	6.0	23.7	N/A	9.0	
>20000	5.6	0.0	6.8	N/A	16.0	
0, missing, N/A	16.2	0.0	15.1	N/A	11.0	52.2***
Total[§]	100	100	100		100	100

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.

[¶] Parenthesis means that the limit is not included; bracket means that the limit is included.

*There are no outstanding loans on means of transportation other than cars.

** This is the percentage of households that revolve credit card debt and have balance that exceeds CYP 5,000.

*** Represents households that do not revolve credit card debt.

[§]Figures may not add to 100 due to rounding.

TABLE 8: Participation of Households in Non-Housing Loans, by Income Group

Type of Loan	Income Category (in Cyprus Pounds)					
	<10,000 (%)	10,000- 20,000 (%)	20,000- 30,000 (%)	30,000- 40,000 (%)	>40,000 (%)	N/A (%)
Any non-housing loan ¹	28.2	54.9	59.2	61.9	69.6	48.4
Consumer Loans (Freq)	24.3	47.4	48.2	47.6	60.9	41.3
Student Loans (Freq)	1.9	10.2	14.9	23.8	16.7	9.1
Personal Debts from Business	3.6	12.0	13.0	7.7	28.6	19.6
Various Other Debts	3.3	3.1	3.5	2.4	4.3	2.8

Source: 1999, Cyprus Survey of Consumer Finances, authors calculations. Statistics use population weights.

¹ Non-housing loans include consumer loans, student loans, personal debts from business, and various other debts.

**TABLE 9: Distribution of Households
by Type of Primary Residence**

Type of Residence	Percent of Households
House Owner	78.1
Apartment Owner	8.0
Rented Apartment	6.5
Occupant of Previously Turkish Cypriot Domicile	1.5
Refugee Domicile	6.0
Total*	100

*Figures may not add to 100 due to rounding.

**TABLE 10: Distribution of Mortgages
on Primary Residence/Secondary Property
By Age Group (percent)**

Households which...	Age Category						Total
	<=29	30-39	40-49	50-59	60-69	>=70	
have or had mortgage	28.6	41.7	52.2	43.1	32.5	11.5	41
have mortgaged property in order to get loan for other purposes	20.2	21.9	35.4	33.0	22.8	4.2	27
have supplementary loans*	1.9	14.2	5.3	1.6	0.0	0.0	5.6

* Supplementary loans are loans other than the mortgage (e.g., renovation loans).

**TABLE 11: Percentage of Households with Mortgage
or Supplementary Loans
by Amount Owed in All Such Loans**

Amount[¶] (Cyprus Pounds)	Mortgage	Supplementary Loans*
0 (paid off), missing, N/A (never held)	73.6	97.5**
(0, 1000]	0.7	0.1
(1000, 5000]	3.7	1.1
(5000, 10000]	4.3	0.8
(10000, 20000]	7.3	0.6
>20000	10.2	0.0

[¶] Parenthesis means that the limit is not included; bracket means that the limit is included.

* Supplementary loans are loans other than the mortgage (e.g., renovation loans).

**3 are missing; 94.5 are N/A, as they have no supplementary (renovation) loan.

**TABLE 12: Distribution of Households with Mortgages
or Supplementary Loans***

Amount[†] (Cyprus Pounds)	By amount of mortgage still owed (%)	By amount of supplementary loans still owed (%)	By amount of supplementary loans borrowed (%)
Fully paid or Missing	25.0**	55.0***	6.5
(0, 1000]	2.0	1.5	0.0
(1000, 5000]	10.5	18.5	9.5
(5000, 10000]	12.5	14.5	17.0
(10000, 20000]	21.0	10.5	43.5
>20000	29.0	0.0	23.5
Total	100	100	100

[†] Parenthesis means that the limit is not included; bracket means that the limit is included.
* Supplementary loans are loans other than the mortgage (e.g., renovation loans).
** Consists of 5 percent missing and of 20 percent fully paid mortgages.
*** Consists of 50 percent missing and 5 percent fully paid loans.

TABLE 13: Percentages of Households with Secondary Properties and with Loans on Secondary Properties

Households with secondary properties	
Some of which may belong to businesses	33.4
Some of which belong to businesses	5.3
Which belong to businesses	1.7
At least some of which belong to them	31.7
Households with loans on secondary properties	
As a proportion of all households	5.3
As a proportion of households with secondary properties	16.1

TABLE 14: Percent of Households with the Specified Number of Property Loans and/or Mortgages						
Loans for	Number of Loans or Mortgages					
	0	1	2	3	4	1 or more
Primary Residence*	60.9	37.4	1.7			39.1
Secondary Properties	94.5	5.2	0.2	0.1	0.1	5.5

* A household has primary residence loans and mortgages if it has at least one of the following types of loans: one or more mortgages; other loans used for the purchase; or renovation loans.

TABLE 15: Percent of Households with Property Loans and/or Mortgages and Debt by Income Group

Owners of	Income Category (in Thousands of Cyprus Pounds)									
	<5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	>40	N/A
Primary Residence*										
with Loans/Mortgages	16.9	34.6	39.9	55.1	55.8	66.0	50.0	68.8	56.5	32.7
with Debt still outstanding	12.2	27.0	29.2	44.0	34.7	43.5	38.5	46.7	52.2	22.0
Secondary Residence										
with Loans/Mortgages	1.1	1.3	6.1	7.2	15.8	14.9	7.4	12.5	12.5	4.7
with Debt still outstanding	1.1	1.3	6.1	5.4	14.7	12.8	7.4	6.7	12.5	3.5
* A household has primary residence loans and mortgages if it has at least one of the following types of loans: one or more mortgages; other loans used for the purchase; or renovation loans.										