The Economics of Consumer Credit: European Experience and Lessons from the US

Finance and Consumption

European University Institute

13th and 14th May 2003

After a brief introductory address by **Yves Meny** and by **Giuseppe Bertola**, **Jonathan Crook** discussed and compared the broad trends in consumer credit markets in his paper *The demand and Supply of Household Debt: A Cross Country Comparison.* In the US, and the Netherlands about two-thirds of households hold debt, compared with only 9 percent in Italy. Similarly, around 45 percent of households in the US, the UK and Spain have a mortgage but only 9 percent in Italy, while 50 percent of households in Spain and the US hold other consumer loans, but only 13 percent in Italy do. The peak age for debt is at around age 35 in Italy (where nearly half hold debt), 40 in the US (where 85 percent of households have debts), and around 45 in Japan and the Netherlands. The level of indebtedness is highest for high income people in the US, while in Italy it is households slightly above the median who hold proportionately the most debt.

The next part of the discussion surveyed the literature on the demand for debt, and on the maximum amount that could be borrowed. If the first is greater than the second, then the household is credit constrained. US and Italian households had been directly asked whether they had recently been turned down for credit. "Yes" answers were give by some 15 percent of US households in the 1980s (rising to 23 percent in the 1990s), but by only some 2.5 percent of Italian households. When credit constraints are not directly observed, indirect methods have to be applied to estimating demand and supply effects, with some selection equation to separating the two effects. Studies find current income, total wealth, education, and being middle aged all increase the demand for debt; while higher income and younger households are supplied with more debt. Being able to enforce debts raises supply (either through the efficiency of the courts or because households are allowed to keep less in default). Lastly, Euler equations have also been used to estimate the incidence of credit constraints suggesting around 20 percent of US households are constrained, with

their prevalence higher for low asset households, but (at least in the UK) fewer households are constrained in more recent periods.

The most important asset held by most households is their house. **Richard Disney**'s presention of *The Housing Boom and the Consumer Debt 'Explosion' in the UK: Macro and Micro Evidence* explored the dynamic relationship between housing wealth, debt and consumption. The UK is particularly interesting since house prices have been especially volatile compared to other markets. The macro data shows that increases in house prices and increases in the level of consumer debt over the last 20 years have been co-incindent. However, except in cases of negative equity (when the outstanding mortgage debt is greater than the value of the house), the marginal propensity to consume out of changes in housing wealth is rather low, and householders saw no larger increase in consumption than renters over this period. A second puzzle is why households hold debt and assets at the same time. Moreover, regions in which house prices were more volatile seemed to show a larger precautionary savings motive.

In *Consumer Credit and Household Loans Markets across Italian Regions*, **Luigi Guiso** discussed how the Italian market. Despite growing rapidly in the 1990's (only the UK compares), credit volume is still small; moreover the maturity of debt is shorter than in other countries. Households in the south, particularly in Campania, Lazio, and Calabria, are much more likely to be denied credit than in the north, even after controlling for household characteristics. There is much evidence that this is linked to supply effects: regions with lower credit have a less efficient judiciary (measured by average length of trial), have less social trust (as measured by surveys), and have greater economic delinquency (as measured the the incidence of false cheques). Inefficient courts also imply that a lower proportion of the debt is recovered, which in turn explains regional interest rate differentials. Fewer Italians report they trust each other than in other countries, while provinces with little blood donation (a measure of social capital) also have little credit. Finally, but very importantly, the Italian market has traditionally been extremely heavily regulated: there were limits on banks opening branches across regional boundaries, and financial products were also regulated. The deregulation of the market in the 1990's explains the rapid recent increase in consumer debt, and the drop in inter-regional interest rate differentials.

The discussion that followed the three opening presentations focused on how to interpret many of the results. **Rosamaria Gelpi** asked whether households who are turned down are credit-constrained or are they trying to breach their inter-temporal budget constraint? Moreover, it is also important to understand agents willingness and ability to repay, particularly if there are macro-economic shocks. She also asked how the market might be regulated to raise consumer welfare. **Umberto Filotto** noted that differences across countries may reflect differences in tastes, and that agents may take time to learn to use new financial instruments. **Michelle White** commented that default was becoming more common in the US, and became likely the longer a credit card was held. **Stefanie Kleimeier** commented that debts (and the definition of debt) may vary due to differences in regulatory environment or tax treatment. This was particularly important when thinking about housing debt.

Default on consumer debts is extremely common in the US, and becoming more prevalent: in her presentation titled *Bankruptcy and Consumer Credit in the US*, **Michelle White** documented that around 1.5 percent of US households file for bankruptcy each year (where over 80 percent of them involve no business debt), and more default on their debts informally (about $1,200 of debt per household is defaulted each year). Part of the explanation is due to the extremely generous bankruptcy rule in the US: debtors can file either under chapter 7, where all debts are discharged but assets beyond an exempt level are surrendered, or chapter 13 where all assets are kept but repayments are scheduled from earnings. Exemptions vary across states from Texas, which allows debtors to keep their house and assets worth $60,000, to Maryland, where the total exemption is $5,500. Moreover, there was considerable scope for re-arranging assets prior to bankruptcy. Even without reorganising debts some 15 percent of households would be better off filing, but around two-thirds of households would benefit if they planned. Are the rules too generous? Allowing default can insure against uncertain future outcomes, but it also reduces the amount that banks lend: borrowers were much more likely to be refused a loan or mortgage in Texas than in Maryland. These findings apply both to consumers and to small businesses. Interestingly, the average level of debt among low asset households was higher in Maryland, but among high asset households it was higher in Texas.

Both **Giuseppe Bertola** and **Luigi Guiso** asked about the endogeneity of the exemp-

tion level: are there political explanations for the different state laws, or do exogenous differences in the likelihood of financial stress explain legal heterogeneity? However **Michelle White** argued that there had been relatively few changes to the exemptions over time, and that the rank-ordering was similar to that in the 1920's. **Rosamaria Gelpi** asked what rules would be optimal, while **Tullio Jappelli** asked how easy it was to re-arrange assets prior to default.

Another way in which lending is regulated is through the rules applying to how lenders share information. Almost all US consumers have several files held by credit bureaus which records their borrowing and repayment history and other pertinent information. The expansion of credit bureaus has been accompanied by a vast expansion in unsecured borrowing. **Robert Hunt** discussed their history and some contemporary issues in *The Development and Regulation of Consumer Credit Reporting in America*. The earliest credit bureaus were cooperative ventures between local retailers who pooled information about their customers (80 percent of consumer credit was held by retailers rather than banks at this time, the reverse of the current situation). Early in the 20th century local organisations in different cities began to share information, but as retail chains got bigger, banks became deregulated and computers became widespread, it became easier to process information centrally and this fueled the rise of national credit bureaus. Credit bureaus help lenders decide whether and how much credit to offer and to monitor potential fraud. However, maintaining accurate records is costly, and their records may contain more errors than is socially efficient. Incorrectly holding positive information (and losing the principal) is more costly than incorrectly holding negative information (thereby foregoing some profits). Credit bureaus encourage consumers to help them correct errors, but since they disproportionately bear the costs, it suggests a role for government in regulating the accuracy of the information on file, and moreover, who has access to it. Several studies suggest about 10 percent of files hold inaccurate information, and that 0.2 percent of applications had errors that resulted in a household incorrectly being denied credit (still large considering that millions of credit reports are issued each year).

Tullio Jappelli discussed the theory behind credit bureaus in his paper *Information in Credit Markets: A Survey*, joint work with *Marco Pagano*. Information pooling mitigates

problems of adverse selection (giving information about the borrowers characteristics), problems of moral hazard (borrower behaviour after receiving a loan), and can detect borrowers who owe funds to many different lenders. But since banks enjoy rents on their informational advantage regarding existing customers, their incentives to pool information are not obvious. While widespread, credit bureaus differ widely across countries in the information they collect. In Anglo-saxon countries members voluntarily share information on all aspects of credit relationships. In European countries compulsory registers containing default information are publicly prescribed. More information sharing occurs in markets where consumers are more mobile, or borrowing is more pervasive, and it reduces the incidence of default. However, it is unclear if the level of information sharing is optimal.

In *Information sharing and its implications for Consumer Credit Markets: US v. EU* **Amparo San Jose** and **Nicola Jentzsch** first compared debt levels across the EU and then showed that roughly 3 percent of EU households report being "overindebted" defined as either default or as having arrears in making interest payments on their debt. However, 18 percent of households report difficulties in repaying their debts. While households report these difficulties arise from divorce, unemployment, or illness, many households also report their difficulties arise from poor financial management, excessive or unexpected charges, or ignorance. This suggests that regulation could help consumers, but regulations differ widely across countries. By constructing an index of each specific protection in each country, the impact of these regulatory differences can be assessed. Increasing the regulatory restrictions on information sharing reduces the number of credit reports that are issued. This reduces the overall level of credit, and also reduces the default risk, and interest rates for those consumers able to borrow. Recent proposals by the European Commission have suggested further regulating information sharing.

Tullio Jappelli asked why there were so many credit bureaus in the US, and whether the formation of credit bureaus could be separated from the expansion of credit - what caused what, a point reiterated by **Jonathan Crook**. As **Nicola Jentzsch** said, in the US there are a few large comprehensive bureaus and then many small niche bureaus. **Richard Disney** asked whether the accuracy of credit reports should really be estimated from appeals over rejected loan applications: could you instead compare the reports from different

credit bureaus? **Jeremy Tobacman** emphasised that regulations had distributional implications. The fact that so many people report repayment difficulties suggested to *Giuseppe Bertola* an important role for credit counselling.

Richard Disney in *House Price Shocks, Negative Equity, and Household Consumption in the UK in the 1990's* examined the the impact of unexpected changes in housing wealth. Using a panel of UK households in the 1990's, he found that the marginal propensity to consume out of shocks to wealth was between 0.04 and 0.08 percent. However, people reacted very differently to increases and to falls in house prices. Increases have a larger effect on households, and there was a particularly large saving effect if the value of the house was less than the outstanding mortgage.

Rosamaria Gelpi asked if interest rate and price effects could be separated, a problem since most mortgages in the UK had flexible interest rates: **Richard Disney** conceded that interest rates were not observed. **Michael Haliassos** asked how persistent shocks were: persistence should cause a bigger reaction argued **Giuseppe Bertola**. **Bob Hunt** suggested different effects will occur if money is spent on the house rather than on non-durables.

In *Wealth Accumulation, Credit Card Borrowing, and Consumption Income Comovement*, **Jeremy Tobacman** explains why households both hold assets and debts. His paper also explains the large consumption movements with predictable changes in income. In his model, the consumer (with a hyperbolic discount function) has a self-control problem: agents preferences are time inconsistent. In a sophisticated calibration exercise, with plausible parameters, the paper estimates the short run discount rate to be 40 percent, but the long-run discount rate at 4 percent, and rejects time-consistent exponential discount rates. Moreover, the fitted model closely matches observed wealth accumulation, credit card borrowing, and consumption-income behaviour among US households.

Bob Hunt suggested that there heterogeneity might be considerable heterogeneity across households not captured by the model, **Richard Disney** argued this could extend to the discount factors as well as the income process. **Michelle White** pointed out that holding both assets and debts may be due to differences in liquidity. **Jonathan Crook** asked about modeling credit constraints, although as **Michael Haliassos** argued, if assets

can be used as collateral this would strengthen the argument in the paper.

Michael Haliassos's presentation of *Credit Card Debt Puzzles* further explored the simultaneous holding of assets and debts. Standard models can not explain why households hold both debt and assets, and moreover why many of these assets are at low interest rates and highly liquid. Hyperbolic discounting can not explain this second phenomenon. Instead of thinking about "me - today" controlling the behaviour of "me - tomorrow", the paper models a "me - accountant" and a "me - shopper" (who could also be viewed as different members of the same household). Calibrates and solution of the model shows it can explain both the puzzles: the "accountant" deliberately sets a low credit limit to reduce spending by the "shopper". This makes it more difficult to buffer unexpected income shocks of course, the paper reports welfare assessments comparing this and other control strategies.

Giuseppe Bertola asked what restrictions on behaviour the model implied that could potentially test the model. Moreover, the simultaneous holding of assets and debts may not be costly (**Michael Haliassos** replied the costs are in order of several thousand dollars paid early and once-for-all to a consumer). **Benoît Mojon** asked whether it model could address the different response of consumption to changes in interest rates between countries where credit cards are widely used, such as the US, and countries where cards are more rarely used, as in the Euro area. **Tullio Jappelli** asked what other methods could help agents control their behaviour.

Benoît Mojon analysed the pricing of banks loans and deposits across the eurozone in *Term Structure and the sluggishness of retail bank rates in euro area countries.* By estimating an Error Correction Model, he finds retail bank rates are directly influenced by both money market rates and bond yields, but that rate changes are "sluggish". This result applies to loans of both long and short maturity and to time deposits. However, while the launch of the Euro has not fundamentally changed the transmission mechanism from central bank to retail rates, short-term market rates have become more important vis-a-vis long-term rates. Moreover retail interest rates react differently in different Eurozone countries.

In *Convergence in Eurozone Retail Banking? What interest rate pass-through tells us about monetary policy transmission, competition and integration*, **Harald Sander** and **Ste-**

fanie Kleimeier again explored the monetary transmission mechanism. They endogenously determined the structural break in the pass-through mechanism for national retail rates, and allow for threshold effects and asymmetries in the response of retail rates to changes in central bank and wholesale rates. In most countries, there was a break in behaviour well before monetary union, as there has been an increase in size and speed of the pass-through, but this does not seem to be linked to increases in competition. Moreover the is still widespread credit rationing in the EU, and except for short-term lending to firms, differences across Eurozone countries in retail interest rates remain large.

The last tow papers were discussed jointly. **Giuseppe Bertola** asked if the panel structure of the data could be exploited: at least some of the shocks across countries might be common, and this may help in identification. Moreover, it might be useful to test some of the restrictions this would imply. **Michelle White** suggested that firms might find it easier to borrow in other Eurozone markets than households, although, as **Stefanie Kleimeier** suggested that this was much easier for large rather than small firms. **Richard Disney** suggested it might be useful to think about the underlying economic assumptions implicit in both papers and asked how they compared. **Robert Hunt** emphasised that many agents may have alternative sources of funds which may differ between countries.