A qualitative note on the distribution of household debt in Europe

Martino Comelli[1]
Ph.D. Student in Sociology
SciencesPo, Paris

Debt, household debt and the crisis – where are we?

For many years, mainstream economics has paid little attention to household debt. Credit and borrowing were mainly understood as a neutral redistribution of money from one group (debtors) to another (creditors), with no significant effect on financial stability or inequality (Bernanke, 2000).

Some economists, and especially heterodox economists, challenged this classical vision. The late Irving Fisher, Minsky (Fisher, 1932; Minsky, 1982) and more recently Keen (Keen, 2009), just to cite a few, saw household debt as an important factor that may have serious influences on both monetary instability (*debt-deflation*, *Minsky moments*) and inequality. Despite the fact that their studies improved our understanding of debt, their contribution remained somewhat marginal and not widely appreciated. With the subprime crisis of 2008, the thematic of household indebtedness got more attention, and the works of the heterodox economists gained more visibility.

We observe a similar pattern in the other social sciences – sociology, political science and anthropology. Before the crisis, credit and household debt had been rarely studied (Ritzer, 1995). Recently, the anthropological work by David Graeber, *Debt: The First 5000 Years* (Graeber, 2012), that explained the social nature of debt through history, gained a lot of public attention. A similar attempt on a more philosophical ground is found in Lazzarato (Lazzarato, 2011), that re-reads classical philosophers like Nietzsche, showing how in debt lie the origins of guilt, class division and the germs of an oppressive society.

Besides those vast theoretical works, little sociological or politological empirical research has been done so far. This small (but growing) corpus of works mainly focuses its interest on how different institutional settings can influence the quantity of household debt. The relationship between welfare institutions and debt has been of particular interest. A lot of Anglo-Saxon scholars in general, and Americans in particular, pointed out how the lack of a proper welfare state could push more people toward debt, with unhealthy consequences, like financial insecurity, difficult deleveraging, and a growing risk of being stuck in poverty. (Hay, 2011a; Montgomerie, 2007; Prasad, 2012)

1. Email: martcomelli@yandex.com, website: http://mrtno.com/

In Europe, there is historically less interest about the phenomenon of debt. Trumbull explains this in historical fashion through a comparison between France and the United States (Trumbull, 2012). In France, policy makers always discouraged the use of debt as a tool to overcome difficult times, and debt tended to be seen as a form of slavery. In France, the focus was on developing other forms of safety nets. In the United States, a highly fragmented society held back the development of a modern welfare state. In that context, debt was usually used as a means to overcome difficult periods and even trade unions encouraged the use of debt as a form of subsistence during strikes. Given this different social context in the United States, private debt became a redistributive policy tool. This resulted in the development of a social system where the role of debt occupied a central position and further led to the development of a more complex legislative framework which included the possibility of families defaulting on debts, which to this day is unheard of in most European countries (Ramsay, 1995).

This mild interest about household debt in Europe can perhaps explain the lack of comparative studies on private debt in the European context. Chmelar (Chmelar, 2012; Chmelar, 2013a; Chmelar, 2013b) studied with particular attention the development of household debt in peripheral and post socialist countries that in the span of 30 years passed from having no debt at all to a credit system fueled by optimistic perspectives. Other scholars like Magri (Magri, Pico, & Rampazzi, 2011) in a working papers of the Bank of Italy conducted a study on consumer credit in 10 European countries. I used that study as a model for the present one, while extending the role of consumer credit to all forms of household debt.

The aim of the present note is to answer the question, *Who is indebted in Europe?* My attempt to answer this question is divided into three sections. In the first part, I will describe the characteristics of indebted households in Europe using microdata of families and individuals, and with a probit regression I will check the propensity of households to get into debt. The second part is about trying to make sense of the European macro differences. As a sociologist, I am interested in the macro and structural factors that may influence that distribution. With the help of a simple cluster analysis, I would like to check if it is possible to find some commonalities between countries and create a theory-driven classification of the European experience, defining three major *debt regimes* along the lines of Esping-Andersen's work. The third and last part will be devoted to the description of the newfound groups.

Household debt and credit in Europe: Where to get the data?

An large number of datasets and studies about the financial situations of households are curated by central banks or central statistical institutes. By their nature, these studies are mostly limited to the national context. The lack of harmonization across these datasets make international comparative research particularly hard, and this can perhaps explain why the comparative literature about household debt is still relatively underdeveloped.

However, while some databases do exist, no solution is optimal. For the purposes of this study, I used a harmonized dataset, the Luxembourg Income Study Database (LIS)[2]. While the LIS is about the financial *flows* of families, and there are no variables about assets or liabilities, the survey allow us to indirectly identify indebted households and individuals by asking them if they are repaying some debt (mortgages or other forms of debt). The same organization developed another database about family wealth, the LWS[3], which would be more appropriate for a study about household debt. Unfortunately, to date, the LWS is not very updated and several countries only have data from the late '90s.

While the LIS and the LWS are cross-sectional studies, the Eurostat produces each year the EU-SILC[4], a panel survey about income and living conditions. Also the EU-SILC does not have precise questions about debt, although there are indirect ways to obtain this information. Moreover, in 2010, a special module has been added expressly with the intention to research household indebtedness. A more detailed survey about debt habits of families has been put in place by the European Central Bank and the Household Finance and Consumption Network (HFCN); the first wave of this research has been published in April 2013. The HFCN has very detailed information about the type and the quantity of outstanding debt and about a number of other economic indicators. Another harmonized database about financial status of families has been developed by the ONU, the World Income Inequality Database (WIID)[5] but it is much more focused on developing economies.

So, who owns household debt in Europe?

As I said in the previous section, this note is based on data from the LIS. I recorded my dependent variable HMXINT (interest paid, household, monetary) in a *dummy* (a variable that can take only two values). The interest paid is a proxy for the presence of debt. By doing so, we will be able to identify who is holding debt, and we can describe the characteristics of indebted populations in 10 selected countries, both at the household level and the individual level. The research will not (and cannot) consider the quantity of debt, only its qualitative distribution. The data mainly came from the 2004 survey, and – when available – I also used the following waves (of 2007 and 2010).

In TABLE 1, I present the distribution of debt in Austria, Estonia, Finland, Ireland Italy, Netherlands, Slovakia, Switzerland and the United Kingdom in 2004. Across these countries, we see that the total number of indebted families varies widely. The lowest rate of household debt is found in post-socialist states: In the Slovak Republic,

2. Luxembourg Income Study Database (LIS), www.lisdatacenter.org. Luxembourg: LIS.
3. Luxembourg Wealth Study Database (LWS), www.lisdatacenter.org. Luxembourg: LIS.
4. EU statistics on income and living conditions (EU-SILC), http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc Luxembourg: Eurostat.
5. World Income Inequality Database V2.0c May 2008 (WIID), http://www.wider.unu.edu/research/Database/en_GB/database/

only 3.60% of families own debt – which is the lowest rate in the Eurozone[6] – while in Estonia, the percentage is higher, with 11.6% of the population involved. But we are very far from the percentages showed in northern European countries like the Netherlands, where more than half of the population holds debt (54.1%) or Norway, where 88% of households are in debt. On October 1, 2013, Bloomberg reported that the newly-elected Norwegian government had "plans to offer tax breaks to encourage consumers to set aside savings in an effort to help the nation deal with its record household debt burden"[7]. As we can see, the quantitative differences between countries are big, especially if we compare *post-socialist* countries like Slovakia or Estonia to central European and Nordic countries.

If we look at the *qualitative* distribution of debt within countries, we can observe a surprisingly similar pattern between all the considered countries. For example, people between the ages of 35 and 44 tend to hold more debt. While the under 35s also hold a lot of debt, it is slightly less than the 35-44 age group. The cohorts older than 44 tend to have decreasing levels of debt with increasing age. In Ireland, Estonia and Slovakia, the over 65s are essentially debt free, while Austria, Italy, Finland and the United Kingdom show less than 10% of the over 65 population holding debt. The perceptual differences are higher for northern countries, with the Netherlands at 22% and Norway at 54%.

A recurring pattern found across countries is the distribution of debt according to the level of education of the respondents. Those that have completed secondary or tertiary education show higher levels of debt compared to those who have only primary education. This can be explained in two ways; those with a better education also have better financial knowledge and thus are more confident to borrow money, or simply those who have a better education are also richer and so can access credit more easily.

Decomposing debt possession by equalized income quintiles shows in fact that debt is, across Europe, a middle- or high-class phenomenon with the exception of the Netherlands and Norway that again show an important presence of debt even in the most poor income quintiles. I computed a poverty line if the income is below 50% of the median income, and again we see a polarized distribution between our countries: In Switzerland, 26% of the population in relative poverty has debt, and in Norway this number grows to 62%. According to a recent IMF report[8], Norway is showing a boom in the housing market sustained by petrol prices, and this "poses significant risk to the Norwegian economy, given the high level of household debt." If the prices of the housing fall too quickly, Norway will risk a "debt-deflation" moment, where people hold more debt than assets and it would be difficult to deleverage. According

6. Household debt lowest in Eurozone. *The Slovak Spectator.* Retrieved from http://spectator.sme.sk/articles/view/46339/16/household_debt_lowest_in_eurozone.html

7. Norway to Fight Record Household Debt Load as Government Formed. *Bloomberg.* Retrieved from http://www.bloomberg.com/news/2013-10-01/norway-to-fight-record-household-debt-load-as-government-formed.html

8. http://www.imf.org/external/np/sec/pr/2013/pr13326.htm

to their conclusions, "Norwegian households have limited financial buffers in the event of a house price correction or other negative shocks to the economy."

Another pattern that holds true for every country is the distribution of debt according to the size of the household. Having children is a big boost for debt: the share of indebted families grows with the size of the family.

If we compare the family structure with debt, we finally observe some differences across countries. Single parents have a higher rate of indebtedness than couples without children in Italy, Austria and Estonia. This fact underlines how having children imposes a great financial burden on families. The indicator I used is income, which includes private transfers, work-related insurance transfers, universal benefits, social assistance benefits, etc. So in these countries, it seems like the social protection of families does not cover the whole costs of having children.

In TABLE 2, I compiled all the data available to date in the LIS, describing the qualitative distribution of debt of four countries (Ireland, Italy, Slovakia and the UK) in 2007 and in 2010. Both in 2007 and 2010, the distribution pattern of debt did not change at all. We found more or less the same characteristics that we observed with the 2004 data.

In TABLE 3, I showed the perceptual difference between 2007 and 2010, and here we can observe some interesting facts. While in 2007 also the quantitative dimension was very similar to 2004, in the 2010 data – after the global financial crisis of 2008 – we observe two interesting phenomena: in Slovakia and particularly in Italy the households with debt skyrocketed, with a growth near to 85% in Italy. Otherwise, in Ireland, we can observe a slight decrease in the rate of indebted families, and even more so in the UK. It is hard to explain the reason for this with so little data, and it would be imprudent too, but I suspect that in the UK a general process of deleveraging is occurring, probably also helped by the easy money policy applied to the pound by the Bank of England. Eurozone countries instead, that are fixed in a high inflationary control have perhaps a harder time complying with their internal devaluation, as in the case of Ireland, or they use debt to cover the lack of liquidity. Looking for a clearer picture on what going on in Europe, this data throws up more questions than answers. Why did Italian households go into debt after the crisis and not before? Why is it the opposite in Great Britain? Answering these questions is not easy and would require a deeper analysis that takes into account various elements, from the housing market to welfare redistribution and the growth model (Hay, 2011b).

Let's do a probit

The results of the descriptive statistics are tested by a multivariate analysis in TABLE 4, where results from four different probits are reported, gradually controlling for all variables. The first three models include every country and the ensemble of the population surveyed. In the fourth model I added control variables for immigration status and disability which are not present in every country, so we lost four countries (Switzerland, Finland, Netherlands and Great Britain). The model still includes Austria, Estonia, Ireland, Italy, Norway and Slovakia. Adding the control variables about work conditions, we lost Norway as well.

The results of the probit confirms, more or less broadly, what we saw in TABLE 1; in model 3, we observe a positive and significative tendency of young households (35-44) to hold debt, and then a significative and negative tendency while getting older. Family size is positive and significant as well, and the effect of having children is clear: families with four members or more have a higher probability to hold debt. In model 3, education matters, even controlling by income quintiles: there is a significant and increasing probability to hold debt with the rise of education level. So education could be, on its own, an element that makes people more confident when deciding to hold debt.

The fourth and the fifth models are less representative of the European situation because of the missing data. But nevertheless, there is some interesting observation at least valid for Austria, Estonia, Ireland, Italy, Norway and Slovakia. Controlling for immigrant status, disability and work conditions, we observe that the effects of education still hold true, but just for the university level. There is a significative and negative effect of immigration on the probability of holding debt, and that's true for unemployment as well. Being disabled is not a significative, which shows that the costs of healthcare for the disabled are covered without necessarily recurring to debt, luckily. Job intensity does not seem a significant measure either.

In general, these results confirm once again the "life cycle" hypotheses of savings and debt first formulated by Modigliani and Ando in the '60s (Ando & Modigliani, 1963). Household debt allows both families and individuals to set right their expenditure over all their life. As the results of the probit have shown, those who hold debt are young couples with children. They need more money to set up their children's future, particularly for education, buying a house and dealing with the financial burden imposed by children. As they grow older, their financial needs will settle and, hopefully, they will be able to repay their debt easily. But it is also important to underline that these are rich and educated young families. Statistically, poorer and less educated families encounter obstacles to finding money in those crucial years of their life, so – from a normative point of view – we should ask ourselves if debt is the best way to deal with the needs of young families, or if debt is another *stratificating* tool that may reiterate an unequal social order. Sociologists are starting to study how access to

credit (through credit scoring) can influence and *stratify* the opportunities of the individual (Fourcade & Healy, 2013).

Making sense of the macro level: A cluster analysis

So far, we have seen how debt is distributed at the micro level. Both the descriptive tables and the multivariate analysis on pooled data show how the distribution of debt is qualitatively similar within the considered countries. These results confirm once again Modigliani's life cycles theory that explains indebtedness by the individual behavior of actors: with the intention of smoothing consumption over their lifetime; they borrow when young and repay later. While within countries the distribution of household debt follows more or less the same patterns, we have observed huge differences between countries. And some of these differences may be surprising. We have seen, for example, that in countries like the Netherlands or Norway, the quantity of families holding debt is particularly high, while in post-socialist countries or in Southern Europe, the share of indebted families is lower. In TABLE 1, we see that more than 60% of people that live in relative poverty have debt, and these high numbers are shared by the Netherlands (20%) and Switzerland (26%). The risk of having a theory that cares only about the behavior of the agent, ignoring structural and macro phenomena, is to drop precious information about what could influence the behavior of actors. In a study about over-indebtedness in Ireland (Russell, Whelan, & Maître, 2012), the authors have already revealed the tendency to explain debt only referring to the micro level, studying the "behavioral characteristics such as an individual's capacity for self-control and patience play in creating such a problem," but disregarding "the broader economic circumstances of households which provide the context of such outcomes."

A big methodological problem of macro sociological research is to conduct rigorous data analysis when we dispose only of a handful of cases as often happens in cross-country comparisons. The use of multiple regressions applied to the study of *small-n* comparisons has spurred debate among sociologists (Esping-Andersen, 2007; Shalev, 2007). While Esping-Andersen suggests a number of good practices while doing regression on small samples, Shalev suggests to use "low-tech forms of analysis," such as tabular representations, tree diagrams or clustering techniques. Another technique used in macro-sociology when dealing with small samples is Qualitative Comparative Analysis (QCA) (Ragin, 1994), this technique is more logical than statistical or mathematical and can help to build solid classifications based on Boolean algebra.

In this section, I want to present a simple, theory driven, exploratory analysis of the macro differences of household debt in the European context. My aim is to create a classification that will help us to understand what are the commonalities and the differences between countries, in order to orientate further analysis on the subject. To conduct the following analysis, I decided to follow Shalev's suggestion and I used cluster analysis. My starting question is: *What differentiates and what commons exist among these countries*?

To answer this question, I selected three dimensions that I think will be useful to understand better the distribution of debt across countries. The first one is financial distress, the second one is income inequality and the third is the saving rate of households. To operationalise the first measurement, financial distress, I used a question in the European Social Survey (ESS) of 2010, which contains a whole section that is dedicated to questions about the financial health of families. One question (DSDCLVE) asks "To what extent did you have to draw on savings/debt to cover ordinary living expenses in the last three years?" This question is a self reported measure of financial distress on a scale from 1 "Not at all" to 6 "A great deal." While the measurement of this question is quite trivial, it could illustrate in a quick and dirty way the mood of the people about their financial situation. In FIGURE 1, I reported the distribution, after having recorded the variable in a dummy[9]. The second dimension that I find important to differentiate countries is income inequality, demonstrated through a Gini index. The third dimension is the savings rate of households; I used Eurostat data from 2004[10]. I analyzed all the countries previously considered in TABLE 1, but I had to drop Austria and Italy because, unfortunately, they are not included in the ESS. So the analysis has been done in eight countries instead of ten. As a cluster algorithm I used a simple two-step cluster, on SPSS[11].

As we can see in TABLE 4, the clustering produced three groups. The *silhouette coefficient* of the cluster is a measure of goodness-of-fit of the cluster that can vary between -1 and +1. For each element in the cluster, it will calculate the distance to other elements within the cluster and between clusters. It is better if the distance within the cluster is lower than the distance between clusters (Norušis, 2011). In our case it's fairly good.

In the first cluster, we find Estonia and Slovakia (1); in the second, United Kingdom, Ireland and Finland (2); in the third, Netherlands, Norway and Switzerland (3). We well now see how these three groups score on the three dimensions that we have set.

1. The first group is characterized by the lowest financial distress of individuals (the mean is 38.2%) and the lowest share of indebtedness (mean 7.6%). But at the same time, it is the group with the high income inequality (the mean of the Gini index is 0.4%) and the lowest share of household savings.
2. The second group, composed mostly of Anglo-Saxon countries (and – ach jo – Finland), reports the highest share of financial distress, a high share of indebted households (mean 39.6%), the highest income inequality and a decent level of savings.
3. The third group is mainly composed of very rich countries with a solid welfare system. The financial distress is low, the Gini is low as well, showing an egalitarian distribution of income, and it's the group with the highest

9. 1 to 3: no financial strain; 3 to 6: financial strain.
10. http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsdec240
11. The dataset and the SPSS syntax used for this analysis can be found here: http://mrtno.com/cluster.zip

savings rate (with a mean of 12.7%). It also has the highest share of indebted families.

This classification has several problems. The first one is the problem with *small-n* comparisons: it is a classification based on eight countries. While it can be useful for orienting thoughts, it has a low generalizability.

Nevertheless, it could suggest some interesting facts. We can observe some kind of link between the micro level and the macro level. If in the micro level, debt is a prerogative of the rich, this holds true also at the macro level. The third cluster is composed of the richest, the most equal and the most indebted countries.

In a recent paper, Gerba and Waltraud (Gerba & Waltraud, 2013) attempted to understand if the lack of welfare encouraged the accumulation of debt, enacting a *substitutive relation* (debt instead of welfare), or if it had the opposite effect, namely, if debt rose when welfare safety nets promoted in some way households' access to credit enacting a *complementary effect,* where more welfare created a stable condition for more debt. They conclude their paper saying that their model "fits the complementarity hypothesis better." Looking at our third cluster, we come to the same conclusion that clearly debt is in general a prerogative of rich countries.

But if the *complementary effect* is most likely "real," that doesn't mean that the *substitutive relation* is false. Context matters, that's the most important finding of a cluster analysis. For example, in Anglo-Saxon countries, a *substitutive relation* is more likely: the share of indebted families is very high, but this comes along with high financial strain and important income inequality. In the end we have the same effects, a high debt, but through a different social process.

Conclusion

In this short note, we have seen that the distribution of debt within countries is very similar. Debt is – in general – for the young, the educated and the rich, with children. What is true at the micro level is also true at the macro level: rich and stable countries have higher shares of household indebtedness than the poor ones.

At the same time, the effects of contextual influences are far from being completely understood: we see a group of countries – namely, Anglo-Saxon ones – where the debt is high even if families do not seem to always have the means to deal with it, and this resulted in the coining of a new term, the "debtfare" (Soederberg, 2012). We have seen how immediately after the crisis, debt in Italy skyrocketed while earlier Italy had one of the lowest debt rates in Western Europe. The *complementary effect* hypothesis alone can't explain this. Many other contextual elements, in particular linked to the monetary nature of household debt, are in general completely ignored.

What I have tried to sketch here is that debt, in different contexts, is a different object. And even if actors behave the same way everywhere, the macro effects caused by the

interaction of their behavior with different institutional and economic contexts produce radically different results.

References

Ando, A., & Modigliani, F. (1963). The" life cycle" hypothesis of saving: Aggregate implications and tests. *The American Economic Review*, *53*(1), 55-84. Retrieved from http://www.jstor.org/stable/10.2307/1817129

Bernanke, B. (2000). *Essays on the great depression*. Princeton, N.J.: Princeton University Press. Retrieved from http://www.loc.gov/catdir/samples/prin031/99041738.html

http://www.h-net.org/review/hrev-a0b6t2-aa

http://www.loc.gov/catdir/toc/prin032/99041738.html

http://www.loc.gov/catdir/description/prin021/99041738.html

Chmelar, A. (2012). Household Debt in Europe's Periphery: The dangers of a prolonged recession. ECRI Commentary No. 12, 22 November 2012. *aei.pitt.edu*. Retrieved from http://aei.pitt.edu/37846/1/ECRI_commentary_No_12_Chmelar_Household_deleveraging.pdf

Chmelar, A. (2013a). European household credit markets continue to fall: Key findings from the ECRI Statistical Package. *ideas.repec.org*. Retrieved from http://ideas.repec.org/p/eps/ecriwp/8331.html

Chmelar, A. (2013b). Household debt and the European crisis. ECRI Research Report No. 13, June 2013. *aei.pitt.edu*. Retrieved from http://aei.pitt.edu/42865/1/Household_Debt_and_the_European_Crisis.pdf

Esping-Andersen, G. (2007). Multiple Regression in Small-N Comparisons. *Comparative Social Research*, *24*, 335-342. Retrieved from http://www.sp.uconn.edu/~scruggs/csr07.pdf#page=75

Fisher, I. (1932). *Booms and depressions : some first principles*. New York: Adelphi.

Fourcade, M., & Healy, K. (2013). Classification situations: Life-chances in the neoliberal era. *Accounting*. Retrieved from http://www.marionfourcade.org/storage/classification-situations.pdf

Gerba, E., & Waltraud, S. (2013). The finance-welfare state nexus of the crisis. Retrieved from http://www.euce.org/eusa/2013/papers/7d_gerba.pdf

Graeber, D. (2012). *Debt: the first 5000 years*. Penguin UK. Retrieved from http://gaiancorps.com/index.php?option=com_k2&view=item&id=13:debt-the-first-5000-years&Itemid=159

Hay, C. (2011a). Pathology Without Crisis? The Strange Demise of the Anglo−Liberal Growth Model. *Government and Opposition*, *46*(1), 1-31. Retrieved from http://www.astrid.eu/Dossier--d1/Studi--ric/Hay_Gov-and-Oppos_1_2011.pdf

Hay, C. (2011b). Pathology Without Crisis? The Strange Demise of the Anglo−Liberal Growth Model. *Government and Opposition*, *46*(1), 1-31. Retrieved from http://www.astrid.eu/Dossier--d1/Studi--ric/Hay_Gov-and-Oppos_1_2011.pdf

Keen, S. (2009). Household debt: the final stage in an artificially extended Ponzi bubble. *Australian Economic Review*, *42*(3), 347-357. Retrieved from http://keenomics.s3.amazonaws.com/debtdeflation_media/papers/aere_560Final.pdf

Lazzarato, M. (2011). *La fabrique de l'homme endetté: essai sur la condition néolibérale*. Amsterdam. Retrieved from http://metices.ulb.ac.be/IMG/pdf/SemLazzarato.pdf

Magri, S., Pico, R., & Rampazzi, C. (2011). Which households use consumer credit in Europe? *Bank of Italy Occasional Paper*, 100). Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1998749

Minsky, H. P. (1982). Can "It" Happen Again? Essays on Instability and Finance, ME Sharpe. *Inc. Nova York: Armonk*.

Montgomerie, J. (2007). Financialization and consumption: an alternative account of rising consumer debt levels in Anglo-America.

Norušis, M. J. (2011). *IBM SPSS Statistics 19 guide to data analysis*. Pearson Education. Retrieved from http://www.lavoisier.fr/livre/notice.asp?ouvrage=2578676

Prasad, M. (2012). *The Land of Too Much: American Abundance and the Paradox of Poverty*. Harvard University Press. Retrieved from http://www.amazon.com/The-Land-Too-Much-Abundance/dp/0674066529%3FSubscriptionId%3D0NM5T5X751JWT17C4GG2%26tag%3Dsonnysoftware%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3D0674066529

Ragin, C. C. (1994). Introduction to qualitative comparative analysis. *The comparative political economy of the welfare state*, *299*, 300-309. Retrieved from http://books.google.com/books?hl=en&lr=&id=cqWx4es48kcC&oi=fnd&pg=PA299&dq=qualitative+comparative+analysis&ots=RRNLbqFF_l&sig=6cZpsjZUzyqbW0EoLzMuHRZt8sA

Ramsay, I. (1995). Consumer credit law, distributive justice and the welfare state. *Oxford Journal of Legal Studies*, *15*(2), 177-197. Retrieved from http://www.jstor.org/stable/10.2307/764654

Ritzer, G. (1995). Expressing America: A Critique of the Global Credit Card Society (The Pine Forge Press Social Science Library). Retrieved from http://www.citeulike.org/group/266/article/379700

Russell, H., Whelan, C. T., & Maître, B. (2012). Economic Vulnerability and Severity of Debt Problems: An Analysis of the Irish EU-SILC 2008. *European Sociological Review*. Retrieved from http://www.ucd.ie/geary/static/publications/workingpapers/gearywp201113.pdf

Shalev, M. (2007). Limits and alternatives to multiple regression in comparative research. *Comparative Social Research*, *24*(3), 261-308. Retrieved from http://michaelshalev.geo.do/Papers/Shalev_Limits.pdf

Soederberg, S. (2012). The US Debtfare State and the Credit Card Industry: Forging Spaces of Dispossession. *Antipode*. Retrieved from http://cips.uottawa.ca/wp-content/uploads/2012/01/Debtfare-Soederberg-Antipode-Jan-2012.pdf

Trumbull, G. (2012). Credit Access and Social Welfare The Rise of Consumer Lending in the United States and France. *Politics & Society*, *40*(1), 9-34. Retrieved from http://pas.sagepub.com/content/40/1/9.full.pdf

Tables and Figures

TABLE 1: Indebted Households

	Italy	Austria	Netherlands	Finland	Norway	United Kingdom	Switzerland	Slovakia	Ireland	Estonia
Tot. Debt	14.80%	25.80%	54.10%	39.00%	88.00%	46.10%	41.20%	3.60%	33.80%	11.60%
Age										
<35	19.90%	32.90%	58.40%	47.70%	94.30%	54.60%	36.40%	5.50%	39.50%	18.20%
35-44	20.00%	34.60%	64.80%	57.30%	95.40%	66.10%	39.60%	3.80%	50.70%	13.50%
45-54	17.10%	23.90%	61.70%	43.30%	95.00%	57.70%	53.00%	2.20%	37.20%	7.70%
55-64	9.80%	15.40%	51.10%	23.00%	87.70%	29.00%	50.20%	1.30%	14.50%	3.40%
>65	2.70%	7.40%	21.60%	8.80%	53.90%	5.90%	37.90%	0.40%	2.90%	1.00%
Education										
<= Primary	12.80%	16.70%	35.30%	37.60%	71.60%	30.20%	36.80%	1.40%	20.80%	3.20%
Secondary	18.30%	24.60%	57.10%	35.70%	87.80%	54.90%	41.50%	3.00%	34.90%	9.00%
>= Tertiary	21.00%	25.30%	66.00%	48.00%	92.50%	55.90%	41.20%	5.20%	42.50%	15.50%
Immigration										
Not Immigrant	15.00%	24.10%	52.60%	N/A	88.40%	N/A	48.10%	3.00%	34.80%	13.70%
Immigrant	12.90%	16.50%	35.00%	N/A	84.20%	N/A	16.70%	3.40%	27.60%	5.40%
Health										
Disabled	4.90%	13.10%	N/A	15.50%	85.10%	22.90%	N/A	1.60%	14.80%	4.30%
Income Quintiles (1)										
1	4.80%	12.00%	14.10%	8.30%	65.30%	15.30%	24.00%	2.00%	9.80%	2.30%
2	11.30%	22.70%	37.00%	24.30%	86.30%	31.10%	30.40%	2.60%	22.60%	4.60%
3	14.30%	31.40%	65.20%	44.50%	94.00%	51.40%	43.40%	4.70%	43.50%	8.00%
4	17.90%	31.60%	76.10%	59.10%	97.60%	64.90%	46.40%	3.90%	48.70%	11.50%
5	26.40%	32.30%	79.70%	59.80%	97.40%	67.50%	61.20%	5.20%	45.70%	32.40%
Relative Poverty										
Poor	6.70%	13.80%	20.20%	7.40%	62.80%	19.90%	26.30%	2.40%	13.20%	3.30%
Household Size										
One	9.00%	19.10%	26.30%	14.60%	72.60%	19.70%	29.00%	2.40%	13.30%	3.40%
Two	11.60%	25.30%	47.50%	34.40%	90.30%	31.50%	37.90%	3.00%	23.40%	5.30%
Three	13.40%	29.30%	63.10%	51.90%	93.50%	48.60%	41.30%	3.10%	38.00%	8.70%
Four	17.60%	29.00%	68.90%	53.30%	95.70%	60.30%	44.10%	5.30%	43.30%	10.90%
5 or more.	23.40%	27.30%	77.30%	53.20%	95.60%	64.30%	52.50%	4.70%	47.50%	28.00%
Household type										
One Person	4.80%	11.80%	21.90%	15.00%	69.80%	22.50%	18.70%	0.50%	11.80%	2.90%
Single Parent	9.40%	24.10%	22.90%	32.00%	92.10%	29.30%	25.00%	1.30%	18.80%	6.50%
Couple, No Children	8.90%	14.30%	50.30%	27.20%	81.50%	35.90%	38.10%	2.20%	22.40%	5.30%
Couple, With Children	19.90%	37.70%	69.80%	58.40%	97.80%	66.10%	50.90%	4.90%	46.60%	19.80%
Other	10.70%	19.90%	30.90%	33.20%	93.20%	32.50%	44.70%	2.80%	17.10%	9.30%
Working Status										
Employed	19.40%	28.80%	62.20%	48.90%	95.50%	59.70%	40.20%	4.10%	39.90%	13.60%
Mainly employed	19.40%	28.70%	63.20%	48.90%	95.50%	60.90%	39.00%	4.20%	40.50%	13.50%
Unemployed	10.80%	21.80%	37.60%	18.90%	N/A	30.50%	27.60%	2.90%	23.20%	5.30%
Retired	4.80%	9.60%	35.50%	11.90%	52.00%	6.90%	N/A	0.70%	3.80%	1.60%
Job Intensity										
Permanent employment	N/A	29.80%	62.80%	50.60%	N/A	N/A	N/A	3.80%	43.40%	13.70%
Short-term employment	N/A	22.30%	39.40%	31.30%	N/A	N/A	N/A	4.20%	22.00%	17.80%
Job Characteristics										
Managers / professionals	N/A	31.70%	68.20%	55.10%	N/A	67.40%	N/A	5.90%	43.30%	23.50%
Other skilled workers	N/A	29.40%	61.40%	45.20%	N/A	59.90%	N/A	3.80%	40.50%	10.40%
Labourers/elementary	N/A	21.90%	39.70%	37.00%	N/A	43.70%	N/A	1.30%	28.50%	6.40%

Source: LIS dataset 2004.

All statistics are calculated using weights (pwgtpop); (1) Equivalent disposable income; income have been top and bottom recoded for each countries, the maximum is ten times the median income, and the minimum is 0. The income variable used (dhi) is the sum of labour and capital income, private transfers, work-related insurances transfers, universal benefits, and social assistance benefit. minus income taxes and social insurance contribution paid.(2) Here the poverty line is defined at the 50% of the median equivalent income.

TABLE 2: Indebted Households '07 and '10

	Ireland 07	Italy 08	Slovakia 07	UK 07	Ireland 10	Italy 10	Slovakia 10	UK 10
Tot. Debt	34.70%	15.60%	6.00%	43.30%	34.30%	29.00%	7.90%	39.00%
Age								
<35	41.20%	20.60%	9.00%	51.10%	39.20%	37.50%	11.10%	44.60%
35-44	52.00%	22.70%	9.40%	64.50%	54.30%	38.10%	13.60%	58.80%
45-54	37.30%	18.70%	2.80%	54.00%	39.40%	34.90%	5.40%	52.80%
55-64	15.20%	8.60%	1.60%	26.30%	17.10%	22.20%	2.30%	25.50%
>65	3.40%	3.40%	1.20%	5.00%	2.80%	8.20%	1.20%	4.80%
Education								
<= Primary	20.10%	14.20%	3.80%	23.30%	18.60%	26.80%	5.50%	19.50%
Secondary	36.70%	17.30%	4.80%	46.20%	31.80%	32.20%	5.70%	41.60%
>= Tertiary	40.30%	19.70%	8.00%	53.40%	44.30%	34.70%	11.10%	49.60%
Immigration								
Not Immigrant	36.10%	15.60%	5.10%	N/A	36.20%	28.80%	6.60%	N/A
Immigrant	26.20%	16.70%	3.70%	N/A	24.60%	36.90%	8.40%	N/A
Health								
Disabled	14.20%	7.40%	2.00%	17.50%	17.70%	16.10%	3.40%	16.30%
Income Quintiles (1)								
1	13.20%	9.70%	4.70%	14.00%	14.80%	22.00%	5.40%	13.50%
2	22.60%	14.30%	4.80%	29.60%	20.50%	26.00%	8.40%	26.50%
3	43.10%	15.40%	7.80%	46.70%	33.90%	31.50%	7.50%	41.40%
4	45.90%	18.20%	6.20%	56.90%	45.10%	31.60%	8.70%	52.90%
5	43.70%	20.90%	6.90%	63.70%	53.70%	35.50%	9.80%	57.80%
Relative Poverty								
Poor	11.80%	8.20%	6.10%	13.30%	12.40%	22.50%	3.80%	12.20%
Household Size								
One	10.60%	6.00%	1.60%	20.00%	13.80%	12.10%	2.60%	18.40%
Two	19.10%	9.60%	4.40%	32.70%	20.10%	16.40%	4.70%	26.90%
Three	32.70%	16.10%	7.70%	46.80%	33.60%	30.90%	7.70%	44.90%
Four	45.30%	21.00%	7.10%	62.60%	46.20%	41.10%	10.30%	57.90%
5 or more.	46.50%	22.70%	6.00%	54.60%	43.20%	37.60%	8.90%	48.40%
Household type								
One Person	10.60%	6.00%	1.60%	20.00%	13.80%	12.10%	2.60%	18.40%
Single Parent	18.50%	9.30%	3.90%	29.00%	20.80%	23.90%	4.30%	26.10%
Couple, No Children	21.40%	9.90%	5.00%	34.70%	22.10%	16.30%	4.70%	27.90%
Couple, With Children	49.10%	20.60%	7.90%	62.30%	46.90%	37.70%	10.90%	57.50%
Other	23.10%	14.00%	4.40%	26.80%	17.60%	28.40%	4.60%	24.40%
Working Status								
Employed	39.90%	19.90%	7.10%	55.90%	44.00%	36.40%	8.90%	51.50%
Mainly employed								
Unemployed	24.70%	11.80%	3.30%	27.70%	26.60%	26.80%	3.90%	25.00%
Retired	3.60%	4.50%	1.30%	5.90%	3.10%	10.00%	1.20%	5.20%
Job Intensity								
Permanent employment	43.20%	20.30%	7.00%	N/A	46.40%	61.10%	8.80%	N/A
Short-term employment	26.50%	15.70%	5.80%	N/A	35.10%	34.60%	8.10%	N/A
Job Characteristics								
Managers / professionals	42.20%	30.30%	9.40%	64.80%	56.70%	40.60%	10.70%	59.70%
Other skilled workers	40.00%	19.80%	6.70%	55.40%	40.60%	40.40%	8.80%	51.30%
Labourers/elementary	29.60%	17.70%	4.10%	39.10%	27.40%	35.80%	6.60%	33.50%

Source: LIS dataset 2007, 2010.

* All statistics are calculated using population weights (pwgtpop); (1) Equivalent disposable income; income have been top and bottom recoded for each countries, the maximum is ten times the median income, and the minimum is 0. The income variable used (dhi) is the sum of labor and capital income, private transfers, work-related insurances transfers, universal benefits, and social assistance benefit. minus income taxes and social insurance contribution paid. (2) Here the poverty line is defined at the 50% of the median equivalent income.

TABLE 3: Difference between '07 and '10 (in %)

	Ireland	Italy	Slovakia	UK
Tot. Debt	-1.15	85.90	31.67	-9.93
Age				
<35	-4.85	82.04	23.33	-12.72
35-44	4.42	67.84	44.68	-8.84
45-54	5.63	86.63	92.86	-2.22
55-64	12.50	158.14	43.75	-3.04
>65	-17.65	141.18	0.00	-4.00
Education				
<= Primary	-7.46	88.73	44.74	-16.31
Secondary	-13.35	86.13	18.75	-9.96
>= Tertiary	9.93	76.14	38.75	-7.12
Immigration				
Not Immigrant	0.28	84.62	29.41	N/A
Immigrant	-6.11	120.96	127.03	N/A
Health				
Disabled	24.65	117.57	70.00	-6.86
Income Quintiles (1)				
1	12.12	126.80	14.89	-3.57
2	-9.29	81.82	75.00	-10.47
3	-21.35	104.55	-3.85	-11.35
4	-1.74	73.63	40.32	-7.03
5	22.88	69.86	42.03	-9.26
Relative Poverty				
Poor	5.08	174.39	-37.70	-8.27
Household Size				
One	30.19	101.67	62.50	-8.00
Two	5.24	70.83	6.82	-17.74
Three	2.75	91.93	0.00	-4.06
Four	1.99	95.71	45.07	-7.51
5 or more.	-7.10	65.64	48.33	-11.36
Household type				
One Person	30.19	101.67	62.50	-8.00
Single Parent	12.43	156.99	10.26	-10.00
Couple, No Children	3.27	64.65	-6.00	-19.60
Couple, With Children	-4.48	83.01	37.97	-7.70
Other	-23.81	102.86	4.55	-8.96
Working Status				
Employed	10.28	82.91	25.35	-7.87
Mainly employed				
Unemployed	7.69	127.12	18.18	-9.75
Retired	-13.89	122.22	-7.69	-11.86
Job Intensity				
Permanent employment	7.41	200.99	25.71	N/A
Short-term employment	32.45	120.38	39.66	N/A
Job Characteristics				
Managers / professionals	34.36	33.99	13.83	-7.87
Other skilled workers	1.50	104.04	31.34	-7.40
Labourers/elementary	-7.43	102.26	60.98	-14.32

Source: LIS dataset 2007, 2010. (Author calculations)

The perceptual difference is calculated as following:
((2010−2007)/2007)*100

TABLE 4: Probability of Household Debt
(Probit estimations)

	Model 1	Model 2	Model 3	Model 4	Model 5
Age					
35-44	0.171 (***)	0.177 (***)	0.168 (***)	0.06	0.061
45-54	0.048 (**)	-0.007	0.013	-0.121 (***)	-0.122 (**)
55-64	-0.42 (***)	-0.472 (***)	-0.362 (***)	-0.421 (***)	-0.404 (***)
>65	-1.03 (***)	-1.029 (***)	-0.823 (***)	-0.892 (***)	-0.789 (***)
Education					
Secondary	0.225 (***)	0.102 (***)	0.13 (***)	0.023	0.044
>= Tertiary	0.324 (***)	0.091 (***)	0.151 (***)	0.117 (**)	0.128 (**)
Income Quintiles					
2		0.311 (***)	0.307 (***)	0.153 (***)	0.132 (**)
3		0.57 (***)	0.556 (***)	0.334 (***)	0.311 (***)
4		0.673 (***)	0.656 (***)	0.477 (***)	0.451 (***)
5		0.869 (***)	0.845 (***)	0.691 (***)	0.568 (***)
Relative Poverty					
Poor		-0.311 (***)	-0.269 (***)	-0.368 (***)	-0.306 (***)
Household Size					
Two			0.034	0.2 (*)	0.18 (*)
Three			0.093 (**)	0.182 (**)	0.161 (*)
Four			0.303 (***)	0.398 (***)	0.395 (***)
5 or more.			0.293 (***)	0.382 (***)	0.387 (***)
Household type					
Single Parent			-0.013	-0.023	-0.028
Couple, No Children			0.315 (***)	0.117	0.121
Couple, With Children			0.407 (***)	0.252 (***)	0.236 (***)
5 or more.			(omitted)	(omitted)	(omitted)
Immigration					
Immigrant				-0.162 (**)	-0.16 (**)
Health					
Disabled				-0.038	-0.05
Working Status					
Employed					0.027
Mainly employed					0.016
Unemployed					-0.18 (**)
Constant	-0.791 (***)	-1.13 (***)	-1.581 (***)	-1.217 (***)	-1.229 (***)
No. Of Observations	183101	182479	182479	88103	61554
Pseudo R^2	0.197	0.224	0.244	0.22	0.119

Source: LIS dataset 2004.

Country dummies are included. (***) coefficient is significantly different from zero at the 1% (**) 5% (*) 10%.

FIGURE 1: ESS financial distress

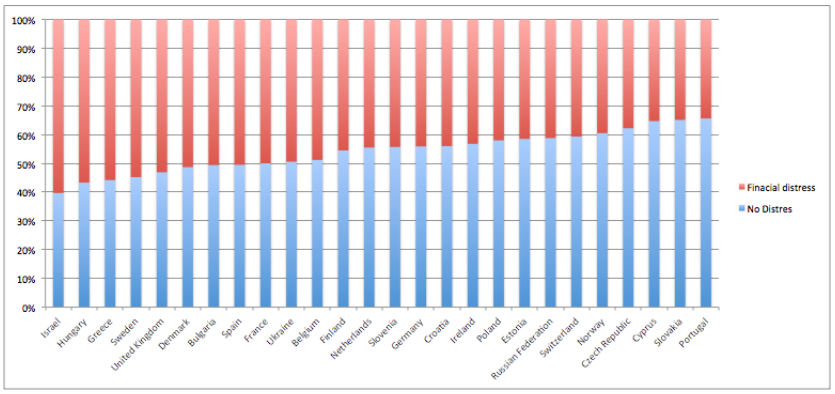

TABLE 5: Cluster Analysis
(Centroids)

Clusters	Financial distress (ESS 2010)		Share of indebted households (LIS 2004)		Gini		Household saving rate (Eurostat 2004)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
1	38.2000	4.66690	7.6000%	5.65685%	.2900	.04243	.0700	8.27315
2	47.2667	5.18106	39.6333%	6.17441%	.2967	.04041	7.4667	3.21935
3	41.5667	2.61024	61.1000%	24.17251%	.2800	.02646	12.7700	1.01926
Combined	42.8625	5.28879	39.6750%	25.94383%	.2888	.03137	7.6063	6.37957

(Frequencies)

Clusters	Estonia	Finland	Ireland	Netherlands	Norway	Slovakia	Switzerland	United Kingdom
1	1	0	0	0	0	1	0	0
2	0	1	1	0	0	0	0	1
3	0	0	0	1	1	0	1	0

FIGURE 2: silhouette coefficient