



Comments on

“Households' Financial Vulnerability”

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# Introduction

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- Research on credit markets typically focuses on lending to firms, while households are mainly viewed as suppliers of funds, rather than debtors.
- Recent events show that lending to households has taken a central role in the balance sheets of banks, as well as in the functioning of financial markets and of the real economy.



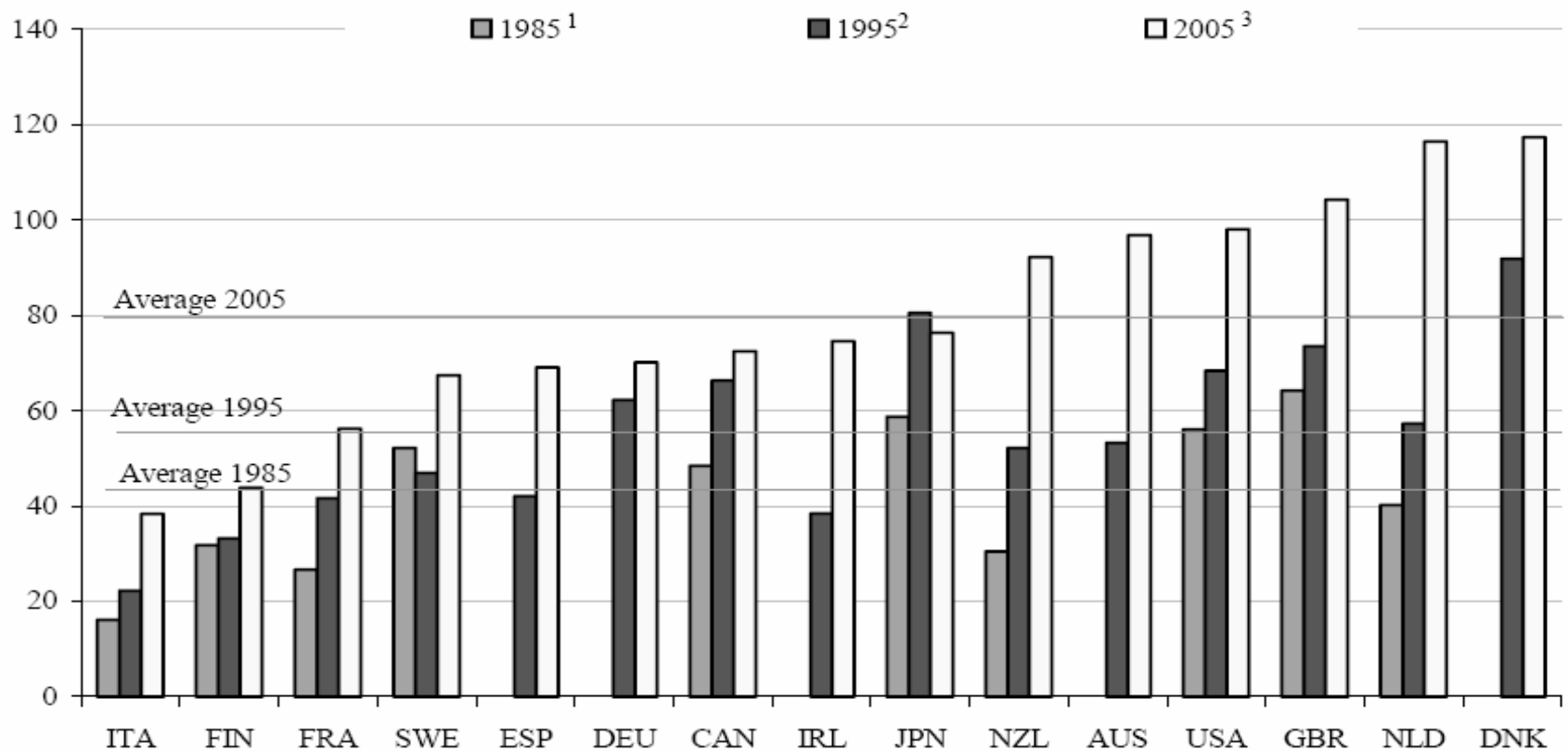
# Introduction

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- While lending to households has become particularly prominent in the United States, it has grown even more rapidly in other developed countries and in several emerging economies, where household debt has been the fastest growing segment of total credit.
- Understanding the determinants of lending to households and of their solvency has become of great importance to market participants, and also an increasing concern of regulators and policy makers.

# Introduction

Household debt as a percentage of GDP





# Introduction

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- Previous evidence suggests that insolvencies tend to be associated with greater households' indebtedness, supporting the financial fragility hypothesis.
- The higher household indebtedness has raised the sensitivity of the household sector to changes in interest rates, asset prices and incomes (Debelle, 2004).





# Comments: international context

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- Chilean households and their debts are different from developed countries:
  - Type of mortgage loans: fix vs. variable interest rates.
  - Income, debt and wealth distribution.
  - Evolution of house prices.



# Comments: debt and asset distribution

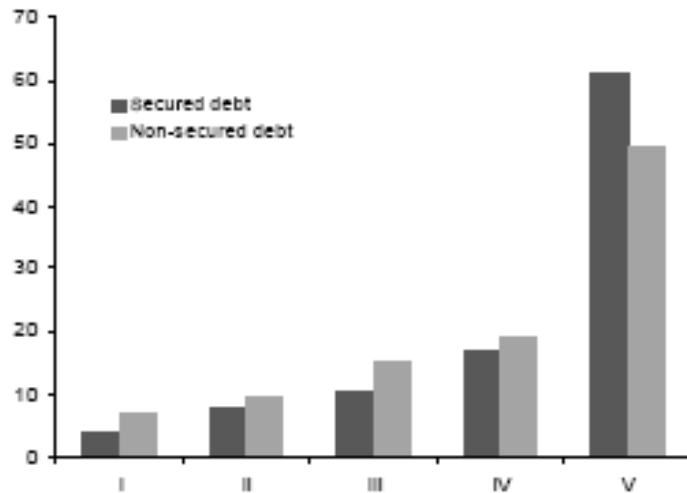
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- Cox, Parrado and Ruiz-Tagle (2007): “The distribution of assets, debt and income among Chilean households”.
- One rough measure of the risks in household lending is the distribution of household debts across income categories. It can be argued that the lower the share of debts held by the lower income quintiles, the lower are the risks associated with household lending.

# Comments: debt and asset distribution

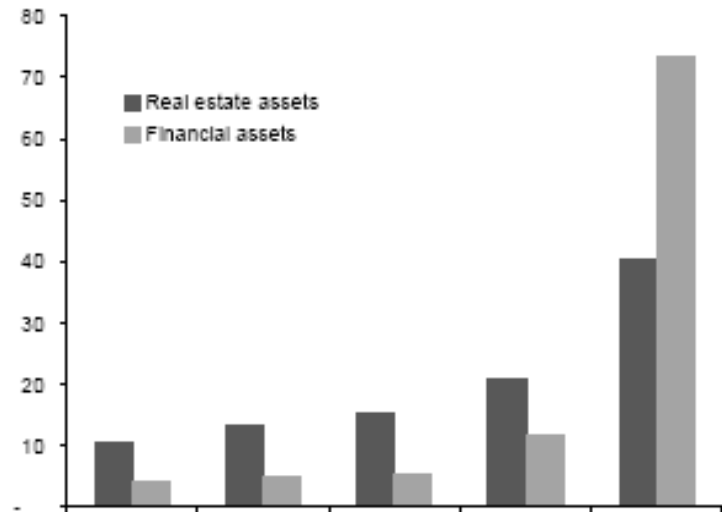
## Distribution of debt

By total household income quintile as percentage



## Distribution of assets

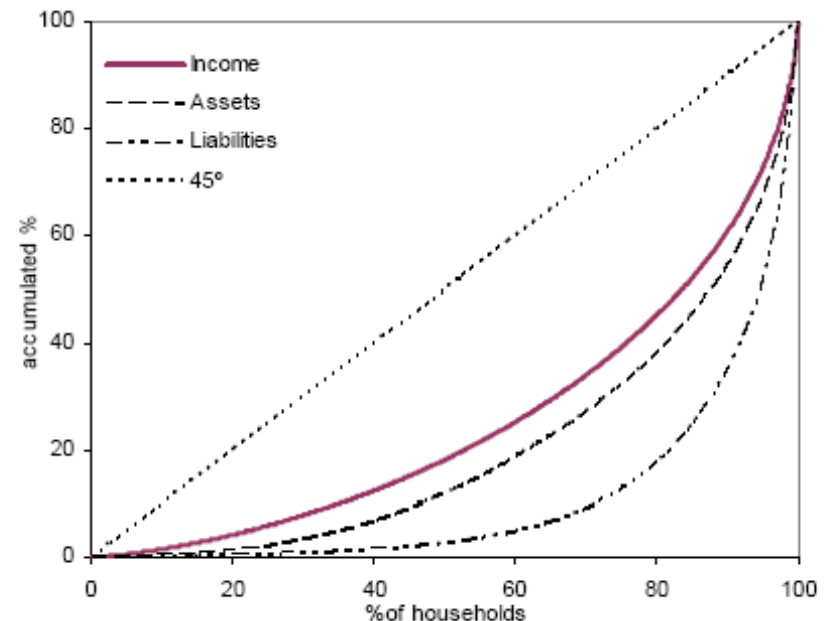
By total household income quintile as percentage



# Comments: debt and asset distribution

- The distribution of assets is not as concentrated as that of debt because it is driven by real estate assets, which are distributed more evenly than debt.
- This is reflected in the Lorenz curves, which show that debt distribution is more unequal than asset distribution and even more than income distribution.
- The concentration of assets indicates an important backing to the concentration of debt.

Distribution of households' incomes, assets and liabilities  
Lorenz curve; percentage





# Comments: net wealth

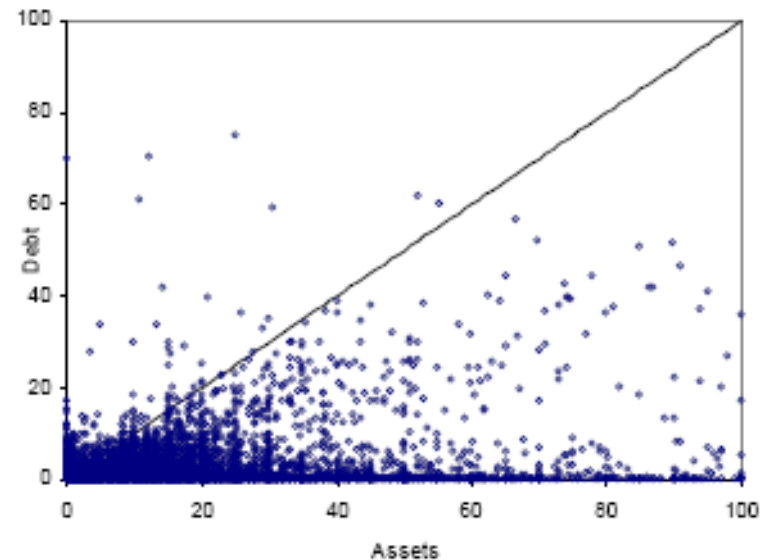
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- As the ultimate goal is to monitor potential credit losses in the banking sector, it does not suffice to just calculate the proportion of households with debt at risk or that lie below some margin.
- The analysis needs to take into account not only the debt at risk, but also value of the assets that can be used to cover losses incurred by a default.
- To gauge the potential credit losses that would be incurred on the banks were the vulnerable households to default, one can calculate the net wealth, i.e. assets minus liabilities, of the vulnerable households.
- If the net worth of a household is larger than zero it does not matter if the household defaults or not, since the credit loss still would be zero.

# Comments: net wealth

- The majority of households have positive net worth.
- 80% of the households have more assets than liabilities (debt-asset combination lie below the 45° line).
- 9% of households are gathered in the origin, indicating that they had no assets or liabilities.
- Only 11% of households have negative net worth. In most cases these households had comparatively little debt and assets to draw upon, so these negative net worth households typically lie close to the origin.

**Households' assets and debts**  
Millions of Chilean Pesos





# Comments: other shocks

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- The paper refers several times that the main source of households uncertainty comes from labor income generation, which is critically determined by unemployment.
- This should be proved or at least referenced by other research. What about shocks to interest rates?
- It is true that interest rates of Chilean household debts are mostly fixed, but they are settled in UFs:
  - Inflation shock



# Comments: other shocks

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- Credit losses are found to be more responsive to changes in interest rates than unemployment (Gyntelberg, Johansson, and Persson (2007)).
- One explanation for this is the composition of households' debt and income.
- Household debt is, by and large, concentrated to the highest income category. These households often consist of two employed adults, and hence the household has dual incomes. Thus, even if one individual in the household becomes unemployed, the other individual's income is usually enough to cover living costs and interest rate expenditures.



# Concluding remarks

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- The paper proposes additional tools to have a better understanding of households' financial vulnerability and consequently impact on the financial stability of Chile.
- I congratulate the authors for this effort and the Central Bank of Chile for supporting this research line.