



# Central Bank of Iceland

## The Situation of Icelandic Households Following the Banks' Collapse

*Further results of an analysis by the Central Bank of Iceland*

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# Introduction



- The purpose of this study is to assess the situation of Icelandic households following the banks' collapse and their capacity to sustain increased debt service under conditions where income and employment are decreasing
- The first preliminary conclusions were published in March
- Since then a large amount of new data has become available, in addition to which work has continued on processing data previously obtained, e.g. on overdrafts
- The most significant factor here is data on individuals' income obtained from the Directorate of Internal Revenue (RSK) and on unemployment from the Directorate of Labour, which could be encrypted in a manner comparable to that used on earlier data

# Introduction



- The database contains financial data on all individual customers of the nationalised banks, savings banks, smaller financing undertakings, pension funds and the Housing Financing Fund (HFF)
- Income data from RSK
- Data on unemployment from the Directorate of Labour
- The data are encrypted and have been processed in a format which is not personally identifiable

# Introduction



- This is clearly a sensitive issue and opinion is divided, both as to what the household situation is and what actions need to be taken to support households in difficulties
- In carrying out this study, emphasis has been placed on applying an impartial and professional approach to the question
- The presentation does not include policy statements, but hopefully the results will be of use in formulating policy in various areas

# Larger database



- **Assets**

- Housing assets, automobiles, bank deposits, pension assets

- **Liabilities**

- Housing mortgages, auto loans, overdrafts, loan to purchase securities, other non-secured debt
- Amount of original loan and outstanding principal as of year-end 2008

- **Income**

- Income in February 2009 and February 2008 according to PAYE records
- Income in 2007 according to tax returns (wages and financial income)
- Disposable income = total income net of tax and pension contributions, having regard for personal deduction

- **Debt service**

- Avg. debt service from issuance of the loan and most recent debt service in ISK
- Debt service ratio = debt service / disposable income

- **Unemployment**

- Applicants for unemployment benefits 1 May 2009
- Individuals receiving unemployment benefits as of 20 April
- Benefit %, % of full-time employment

# Summary of presentation

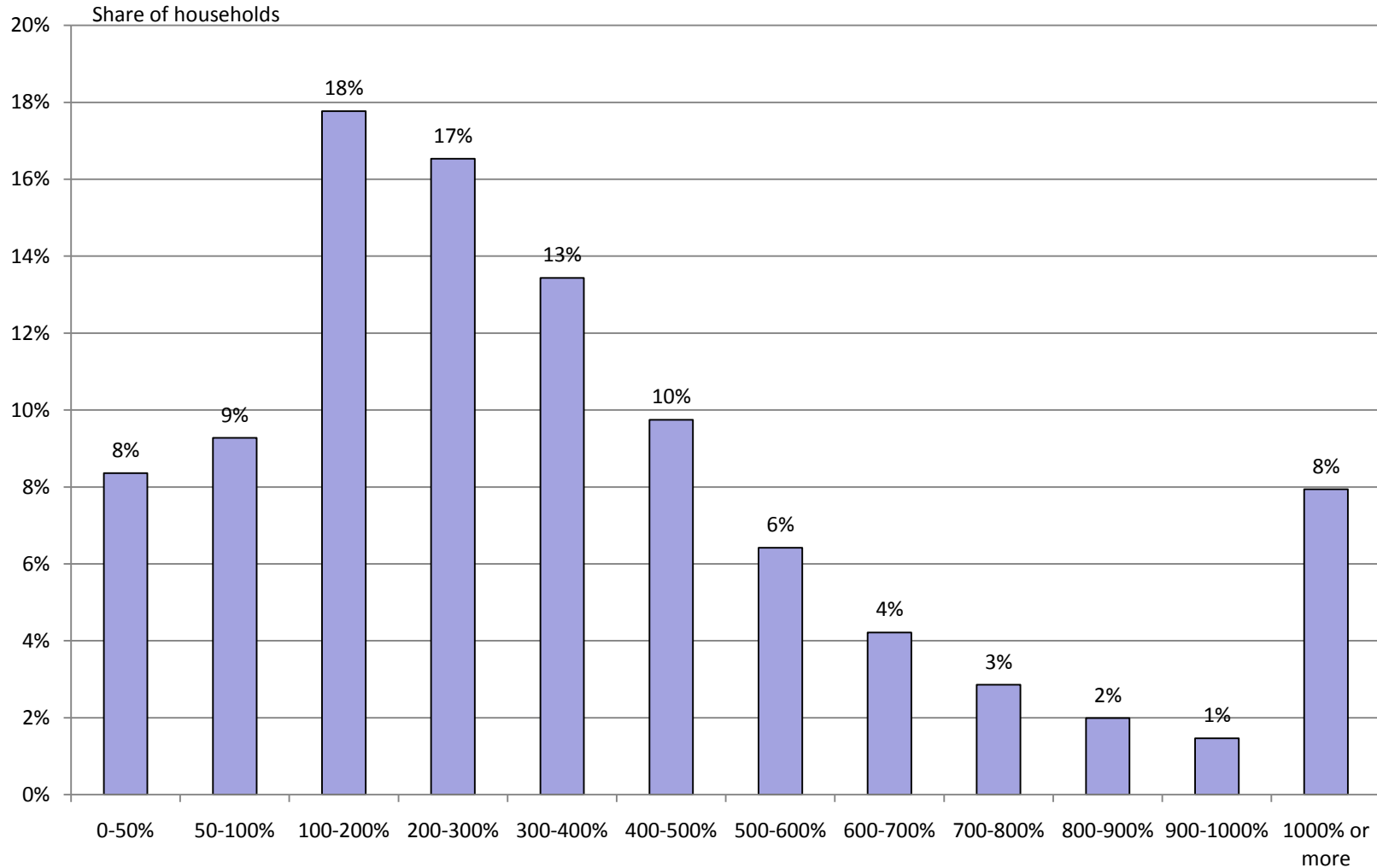


- How indebted are Icelandic households?
  - Indebtedness as a ratio of annual disposable income
- How are assets and liabilities distributed amongst income categories?
  - Housing assets, financial wealth, total assets
  - Housing, auto and overdraft debts, total debt
- What does household income distribution look like?
- How heavy is household debt service?
  - Debt service on housing, automobile and overdraft debt, total debt service
- How large a portion of overall household debt is borne by households with high debt service?
- What is the debt service and income distribution of various specific groups?
  - Large families, single parents, currency groups
- What households are at greatest risk of ending up in difficulty?



How indebted are Icelandic households?

# Housing mortgage debt as a ratio of disposable income

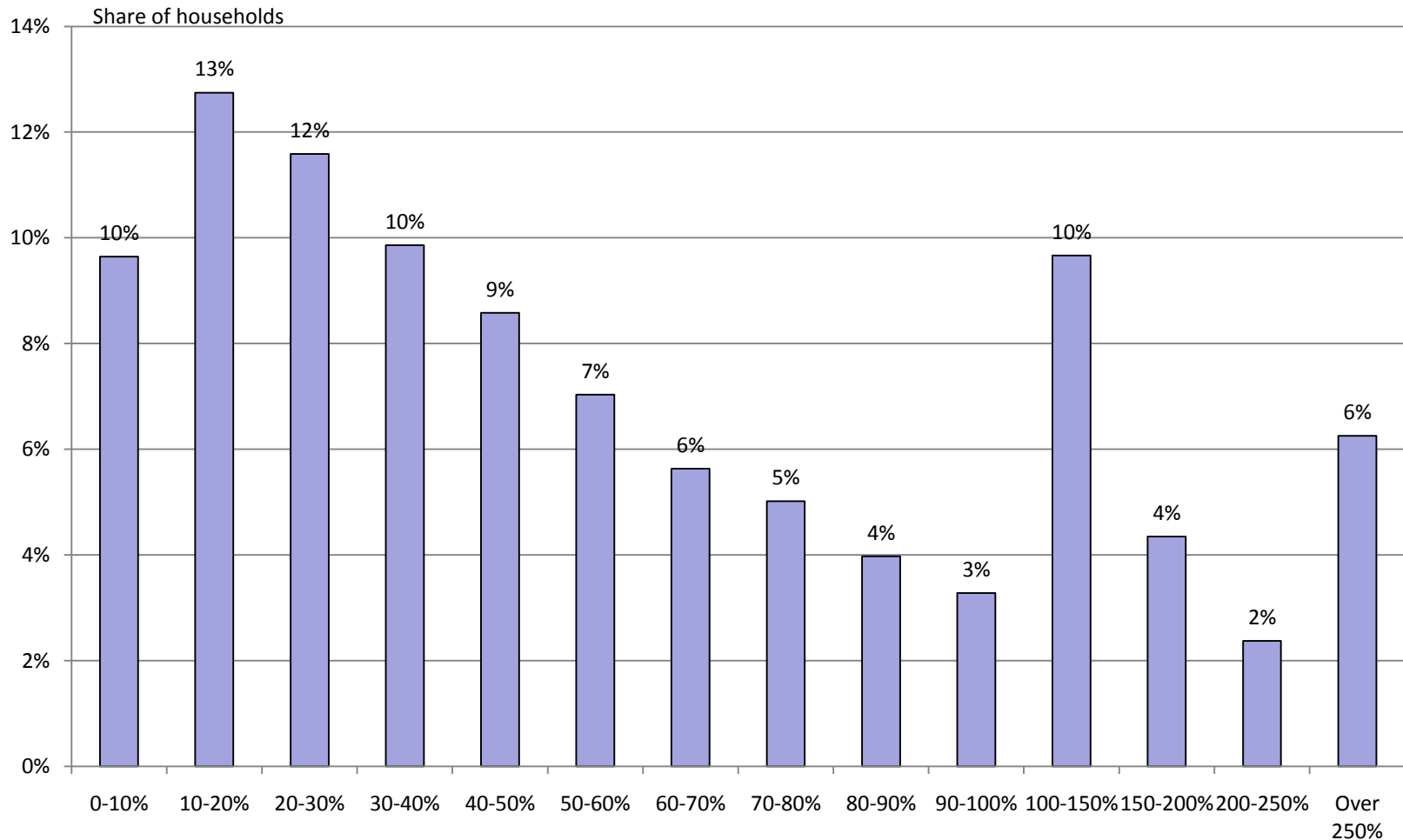


Outstanding mortgage debt as % of annualised disposable income (based on income data for February 2009)

Over half of households have housing debt amounting to less than three times their annual disposable income, one-quarter owe more than 500% of annual income



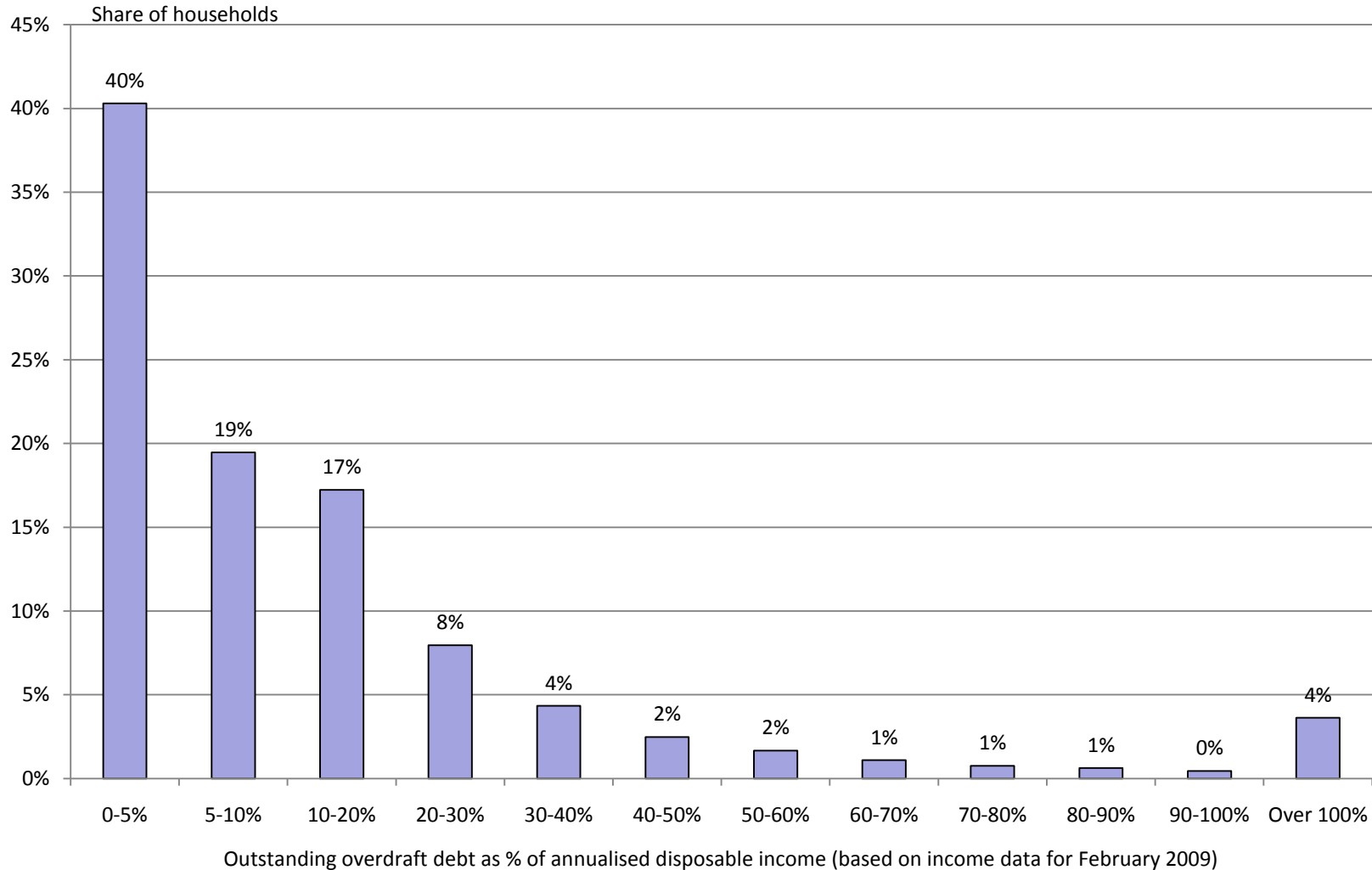
# Auto loans as a ratio of disposable income



Outstanding auto loans as % of annualised disposable income (based on income data for February 2009)

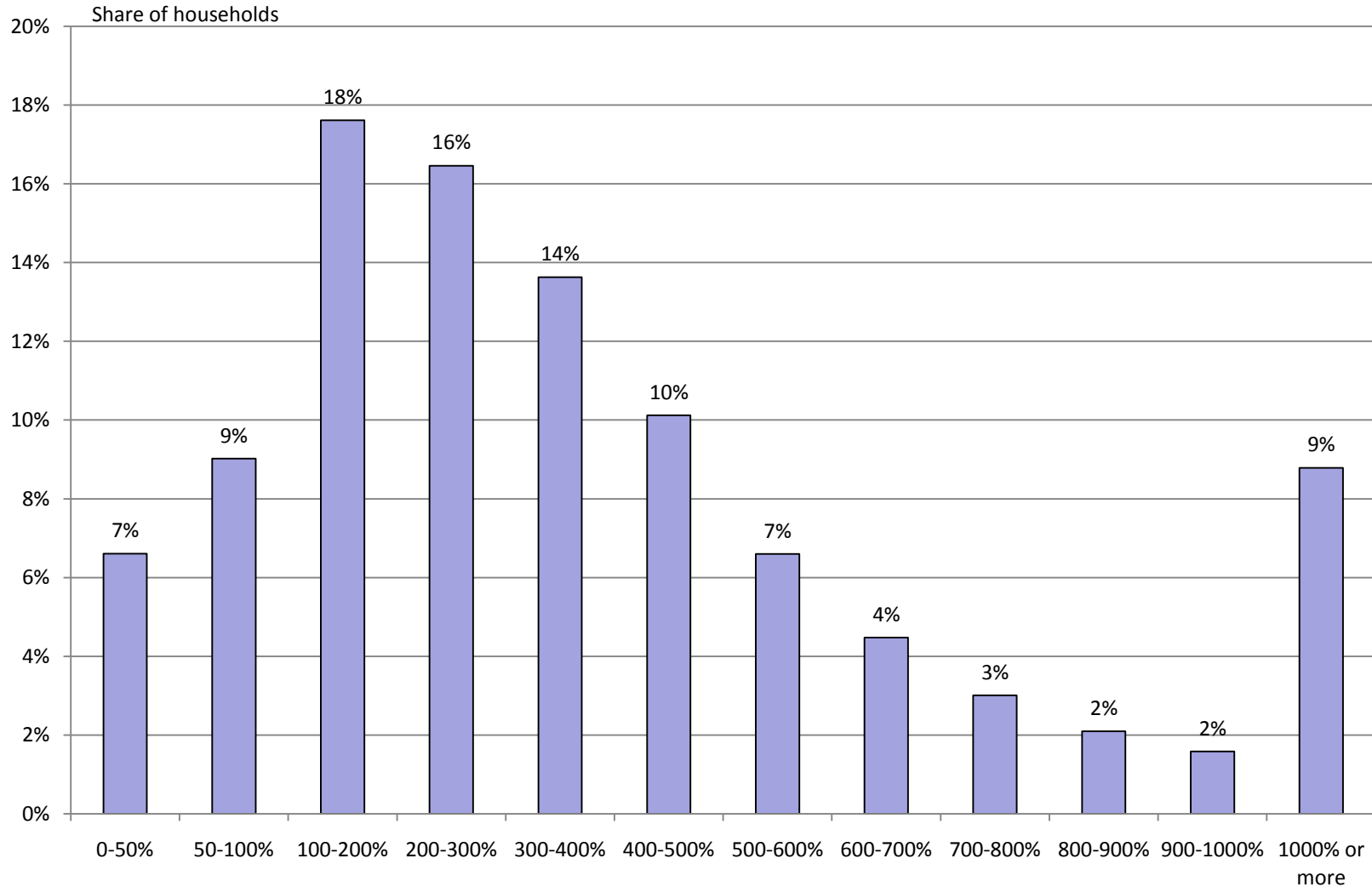
For over half of those households with auto loans, this debt is less than 50% of their annual disposable income; 1/4 of households owe more than the equivalent of their annual income

# Overdraft debt as a ratio of disposable income



Close to 60% of households have overdraft debts equivalent to less than 10% of their annual disposable income, while 8% of households have overdraft debt exceeding half their annual income

# Total debt as a ratio of disposable income

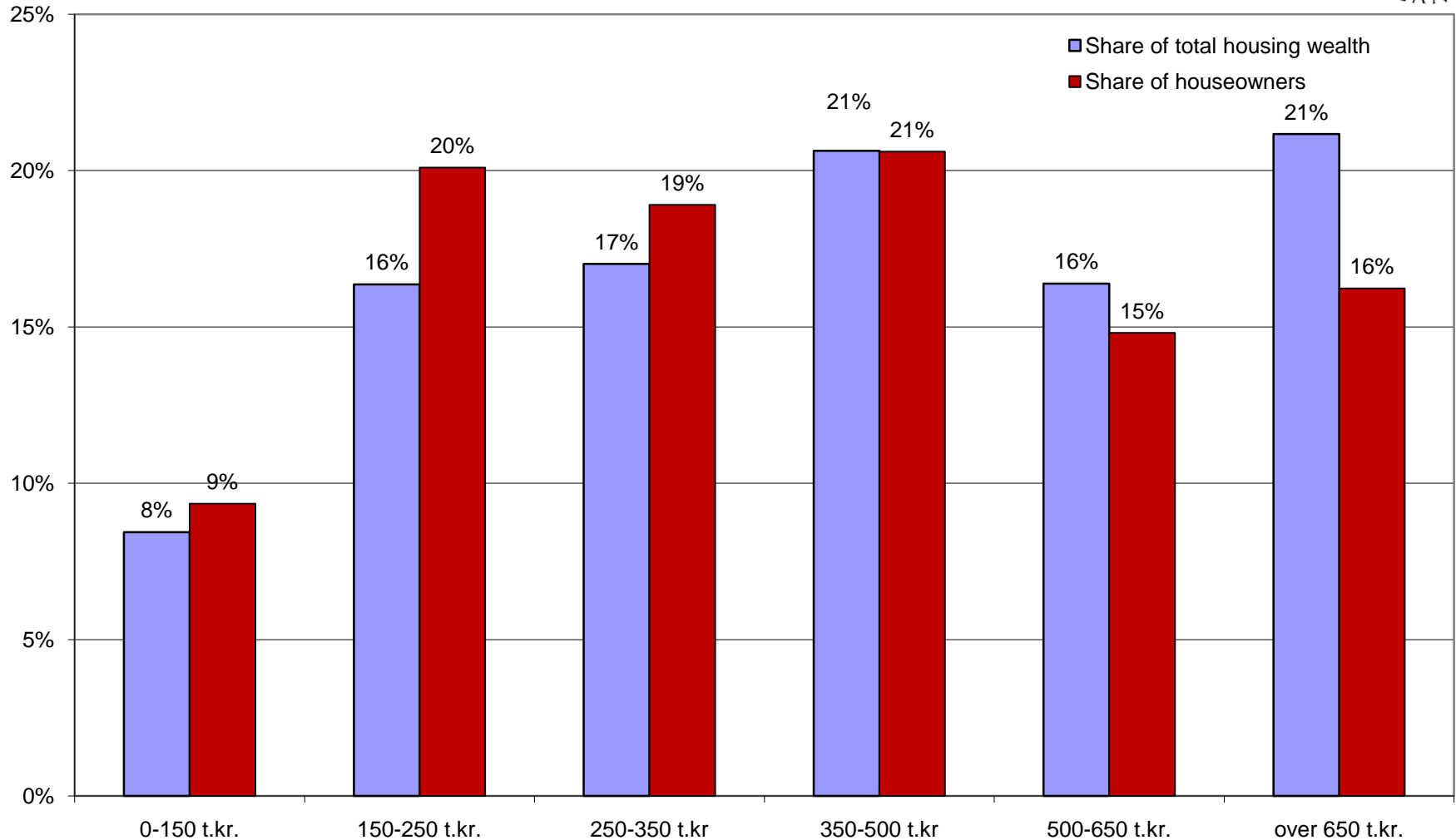


Outstanding mortgage, auto and overdraft debt as % of annualised disposable income (based on income data for February 2009)

**Total debt of 63% of households is less than four times their annual disposable income, while just over 1/4 have total debt equivalent to more than 500% of annual income**

How are household assets and liabilities distributed among income categories?

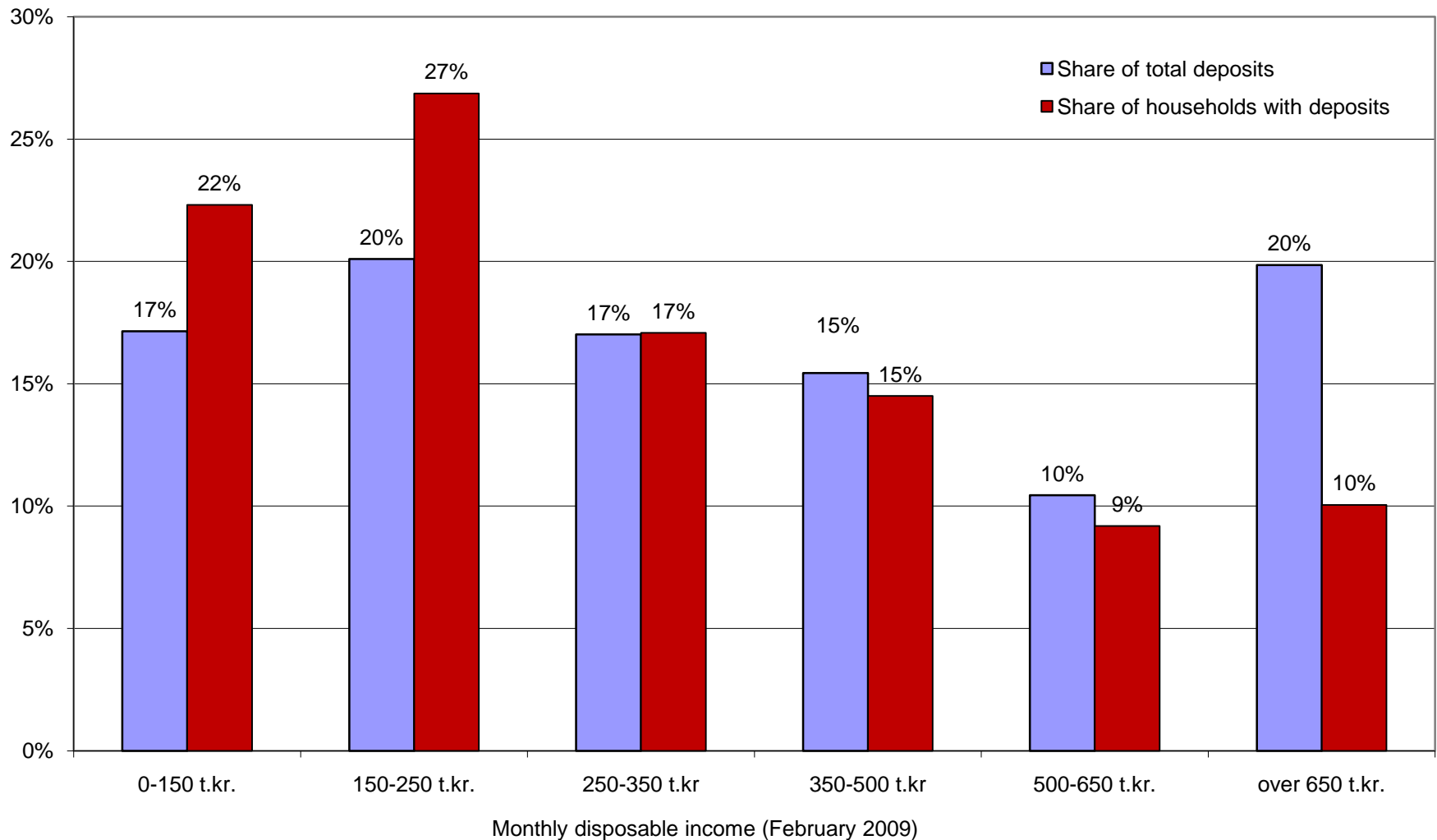
# Breakdown of housing wealth by income group



Monthly disposable income (February 2009)

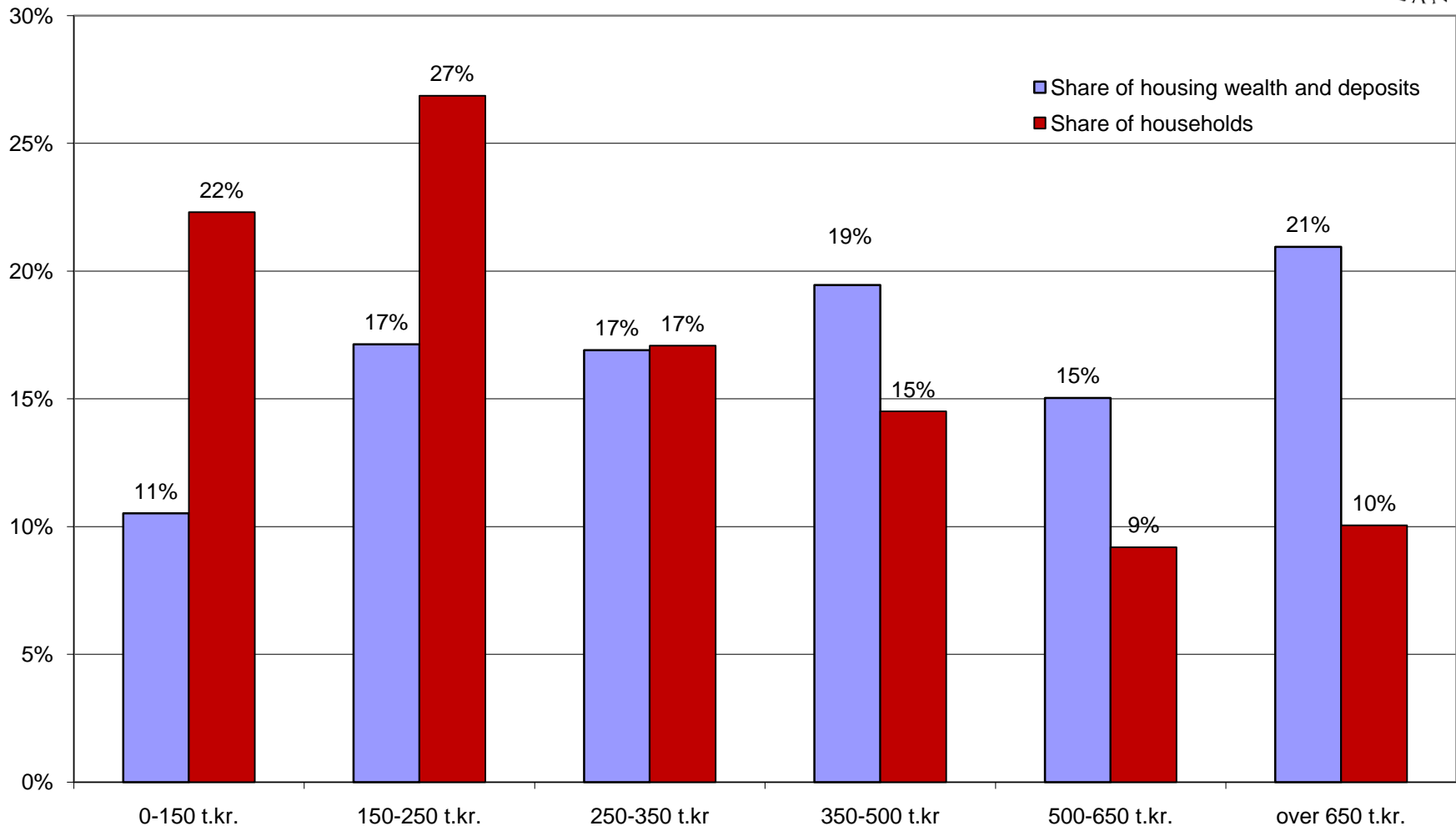
Housing wealth is distributed roughly in proportion to homeowners' income distribution, although there is some tendency for higher income groups to own a proportionally greater share of housing wealth (debt free homeowners excluded if they have not allowed others to use their housing as collateral)

# Breakdown of total bank deposits by income group



The distribution of bank deposits is somewhat more unequal than that of housing wealth: The two highest income groups hold around 30% of deposits but include under 20% of households

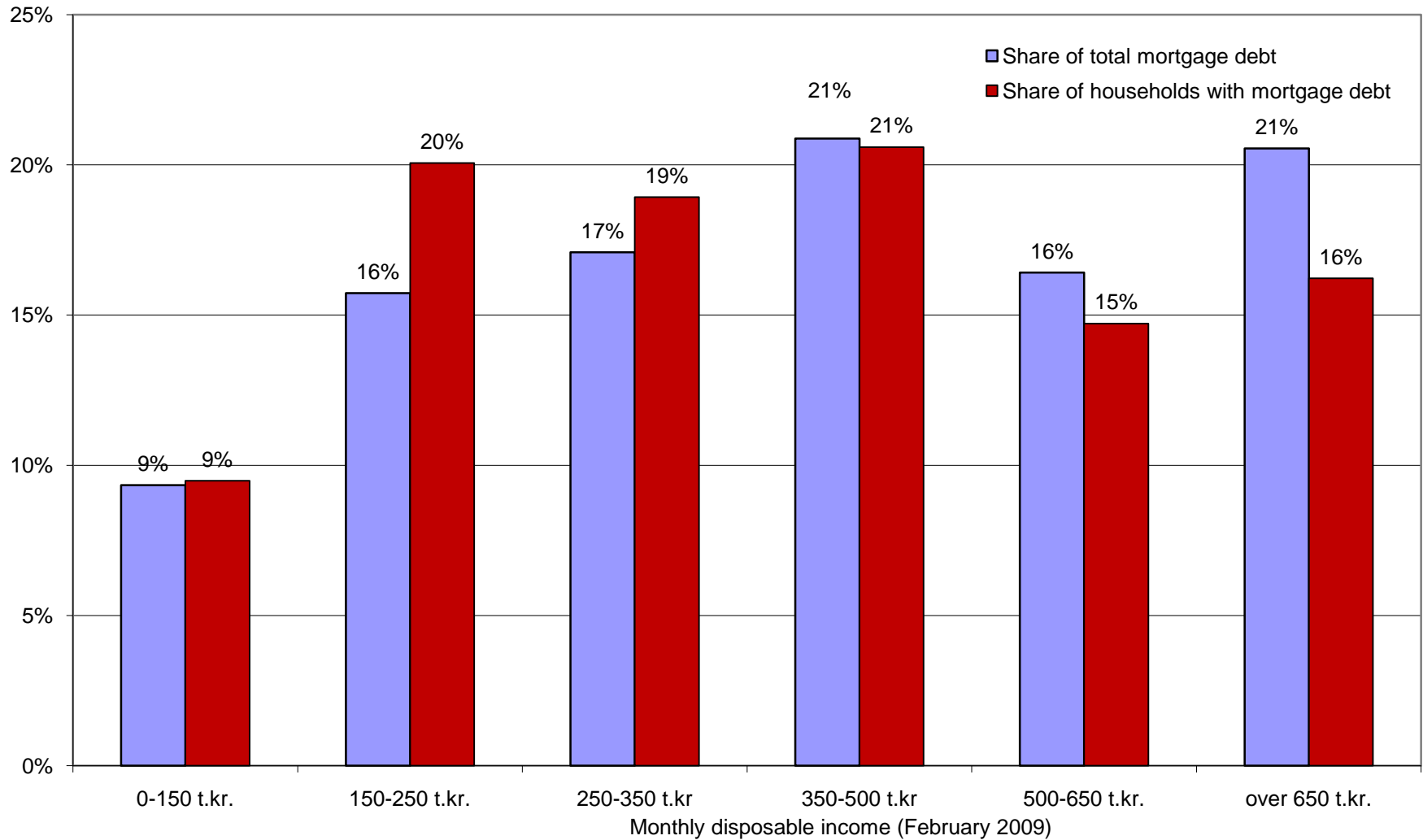
# Breakdown of “total assets” (excl. pension assets) by income



Monthly disposable income (February 2009)

This is reflected in the distribution of “total assets” (housing and deposits), where the two lowest income groups own only 28% of total assets although they include around half of households

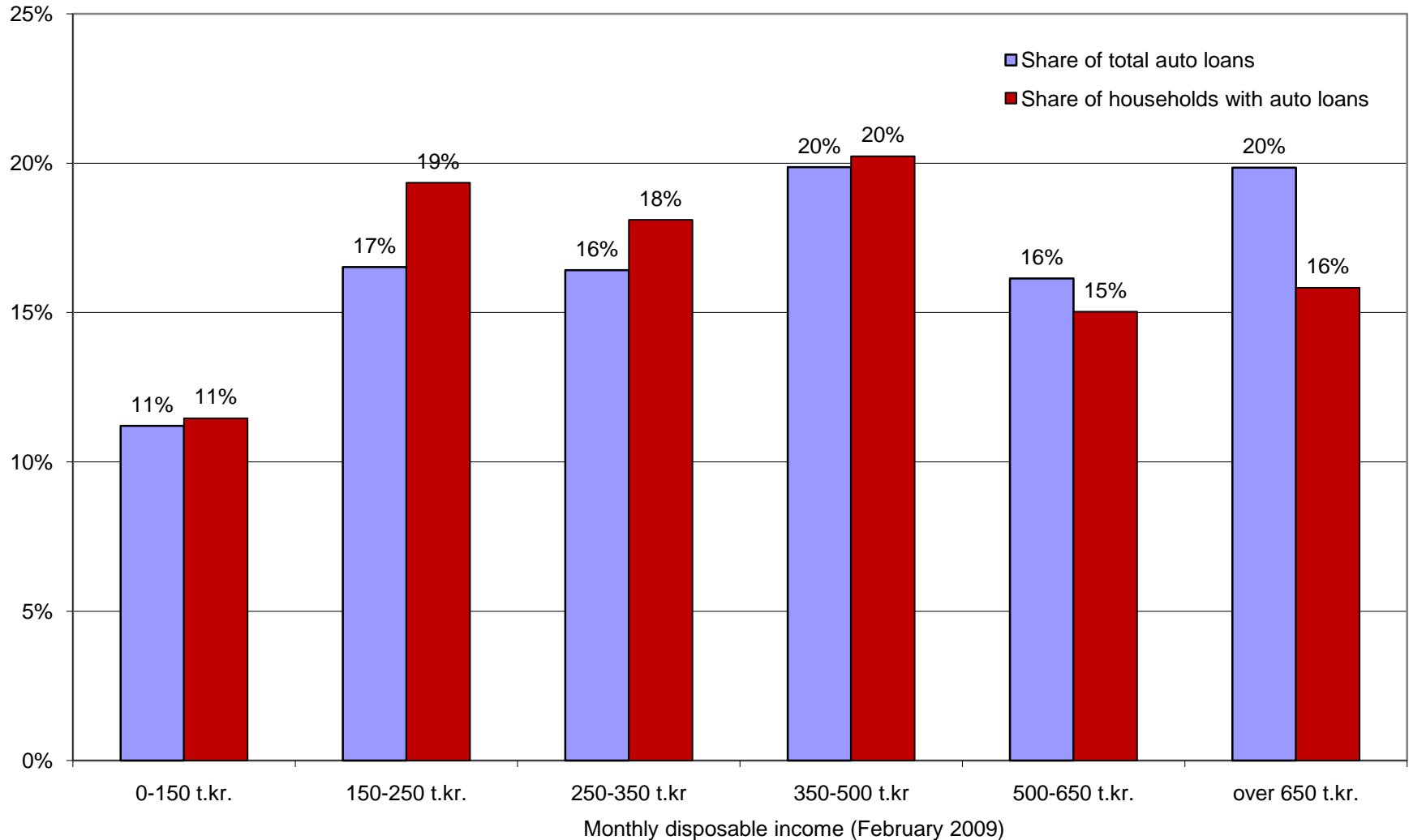
# Breakdown of total housing debt by income group



The distribution of housing debt is roughly proportional to household income distribution and the tendency of higher income groups to have a proportionally larger share of housing debt is limited

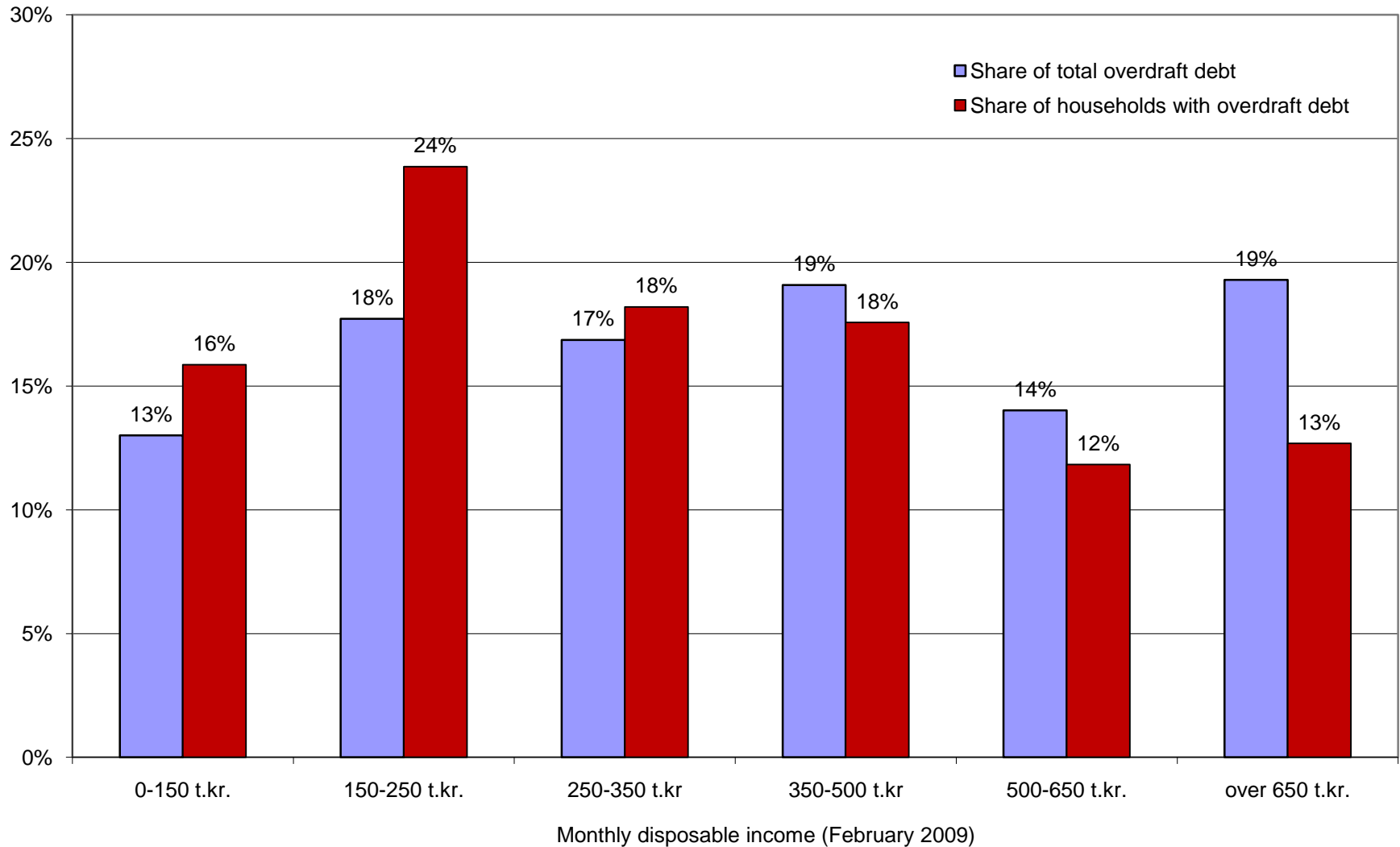


# Breakdown of total auto loans by income group



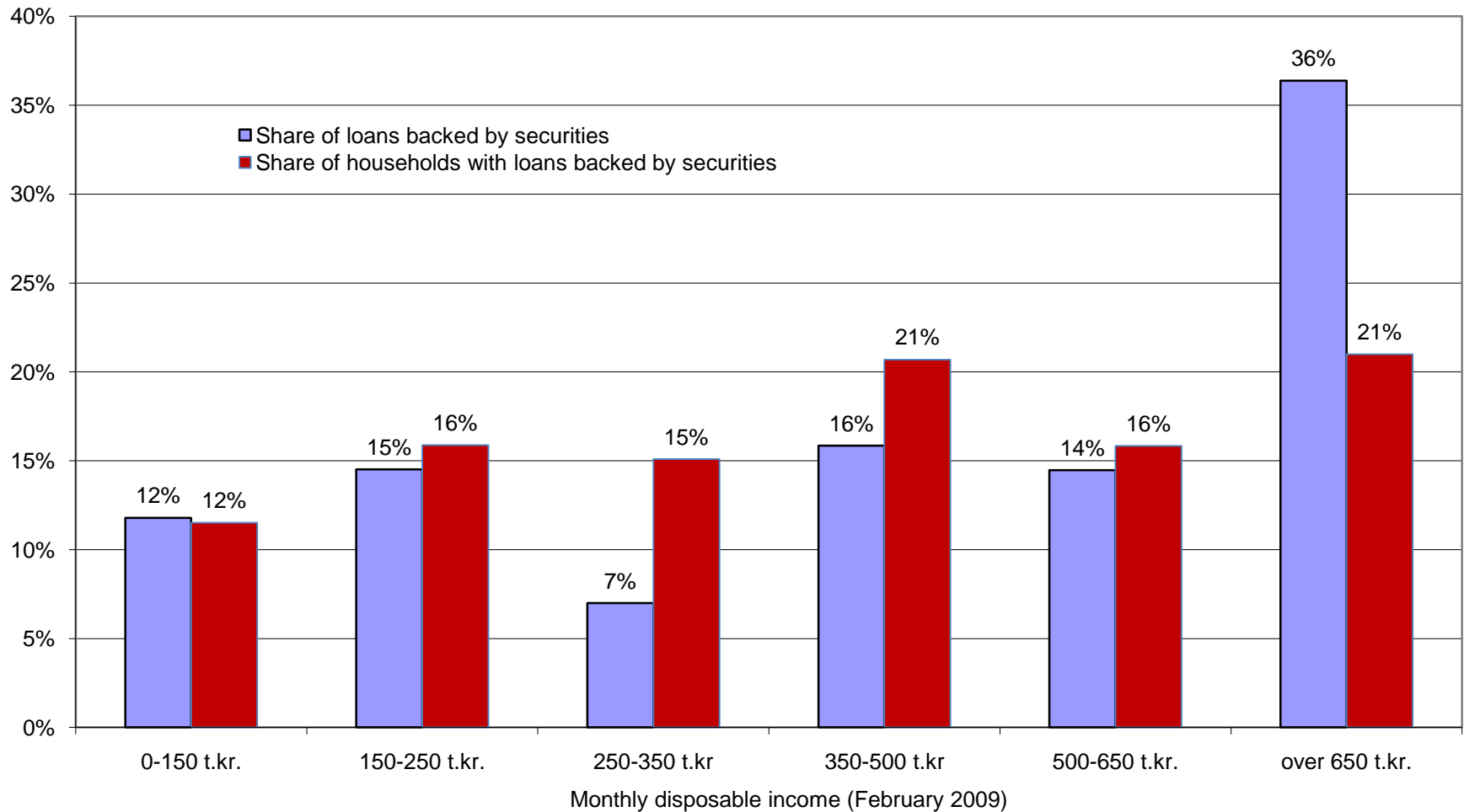
The distribution of auto loans is also roughly in line with household income distribution

# Breakdown of overdraft debt by income group



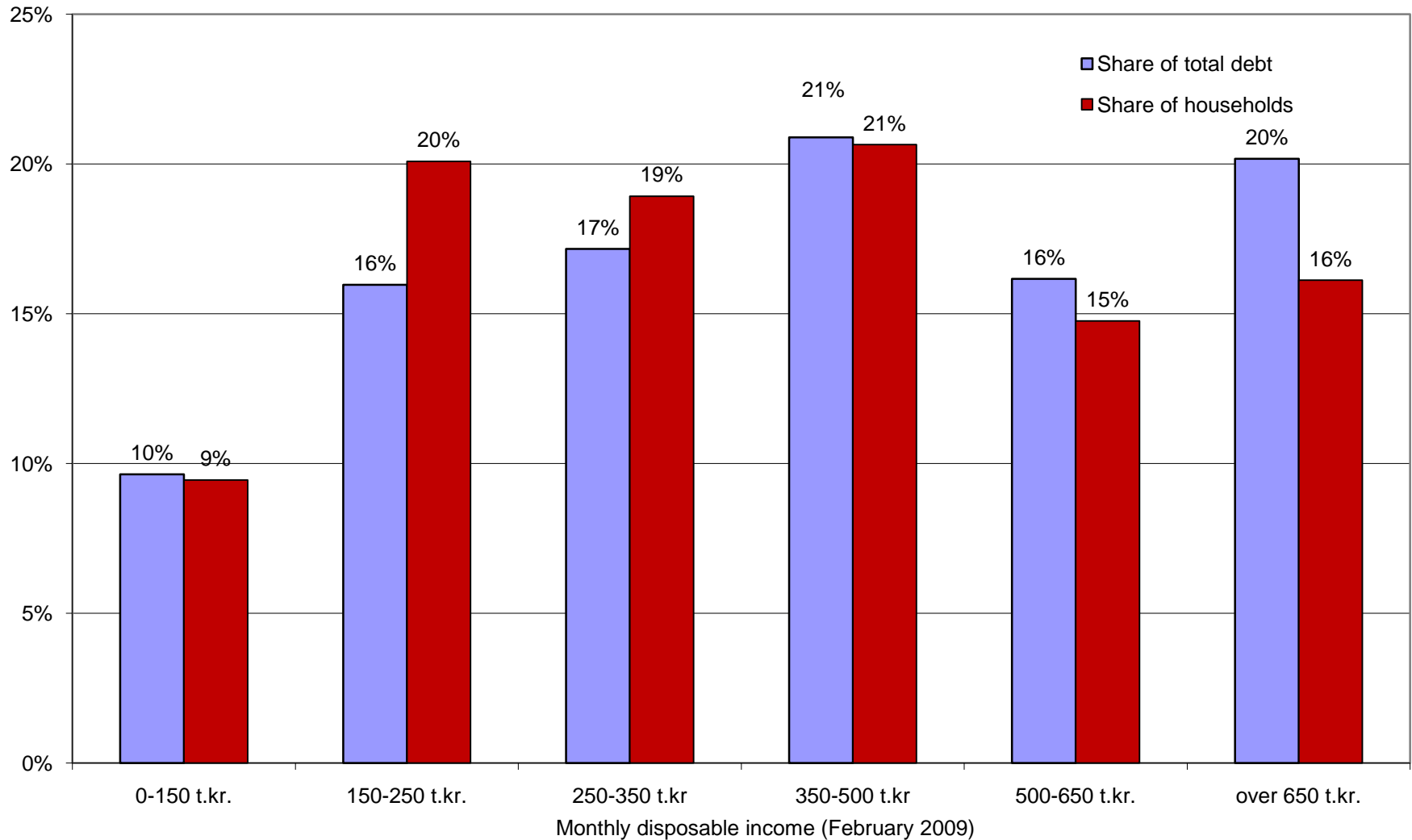
There is a tendency in higher income groups to have a larger portion of overdraft debt than of housing and auto debt

# Breakdown of total loans backed by securities by income group



The highest income groups have the largest share of securities debts of individuals, but the two lowest income groups nonetheless have 27% of securities debts of individuals

# Breakdown of total debt by income group

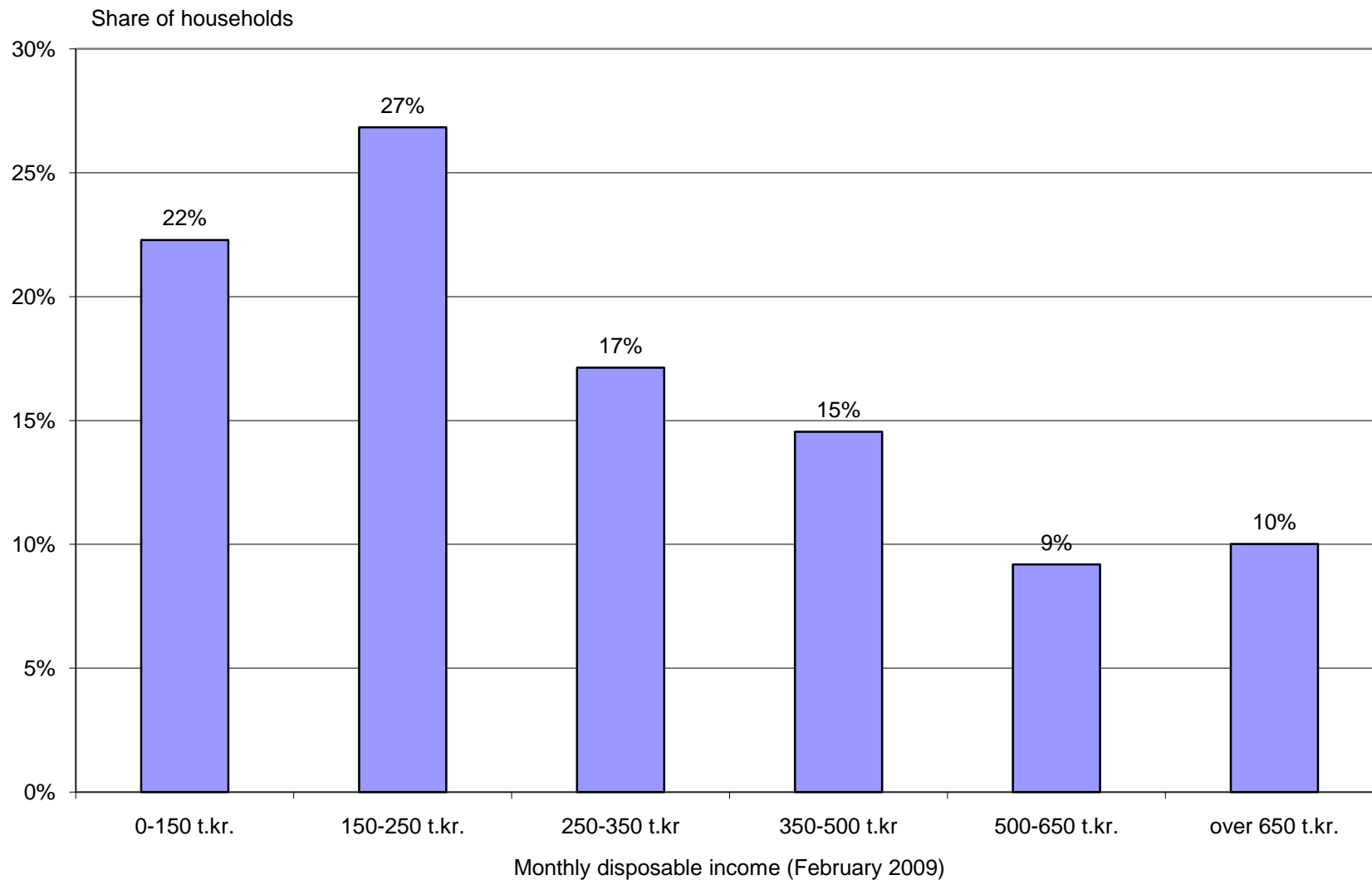


The distribution of total debt is roughly proportional to household income distribution and the tendency of higher income groups to have a proportionally larger share of total debt is less than in many other countries

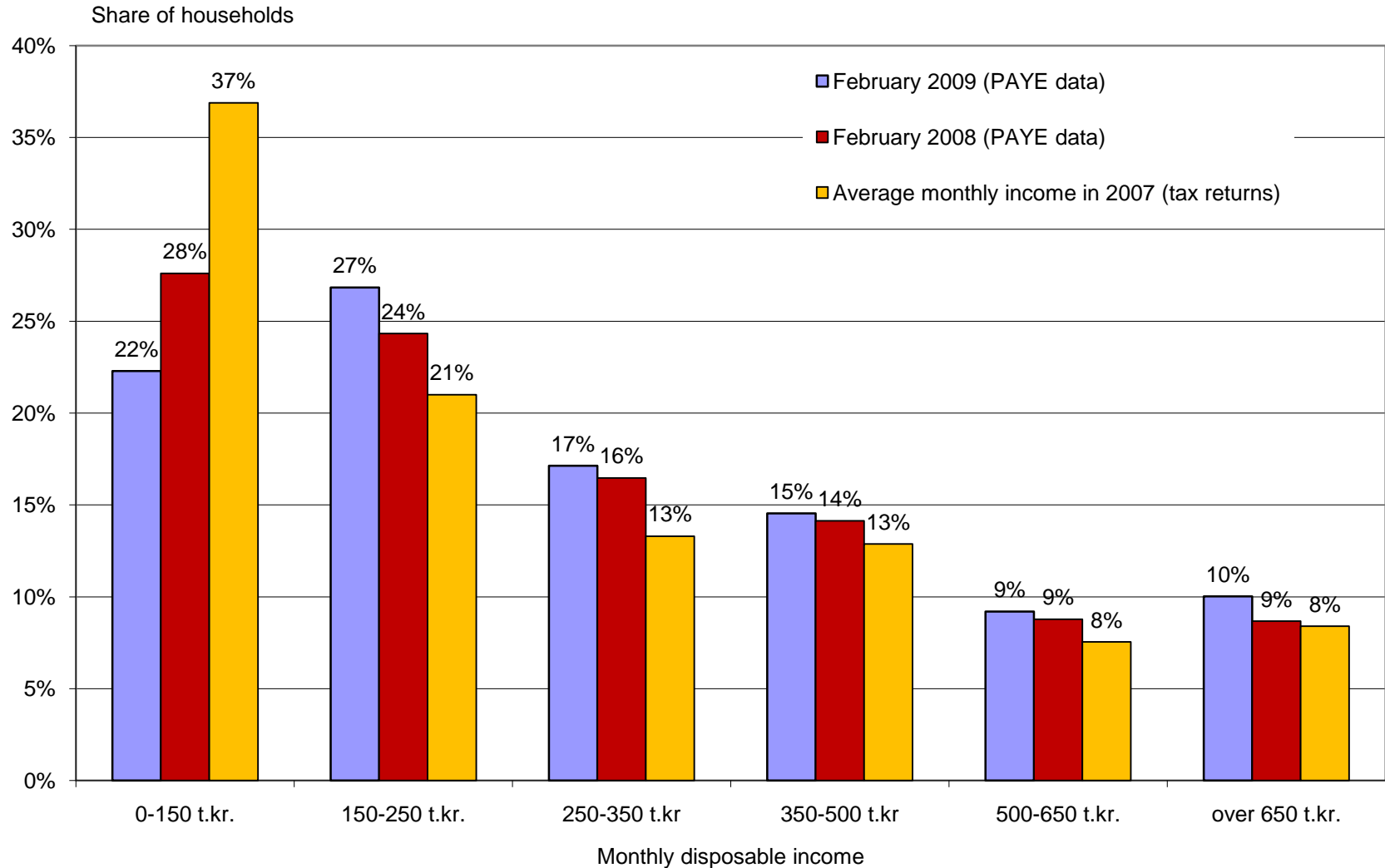


What does household income distribution look like?

# Income distribution in February 2009



# Income distribution in 2007, 2008 and 2009

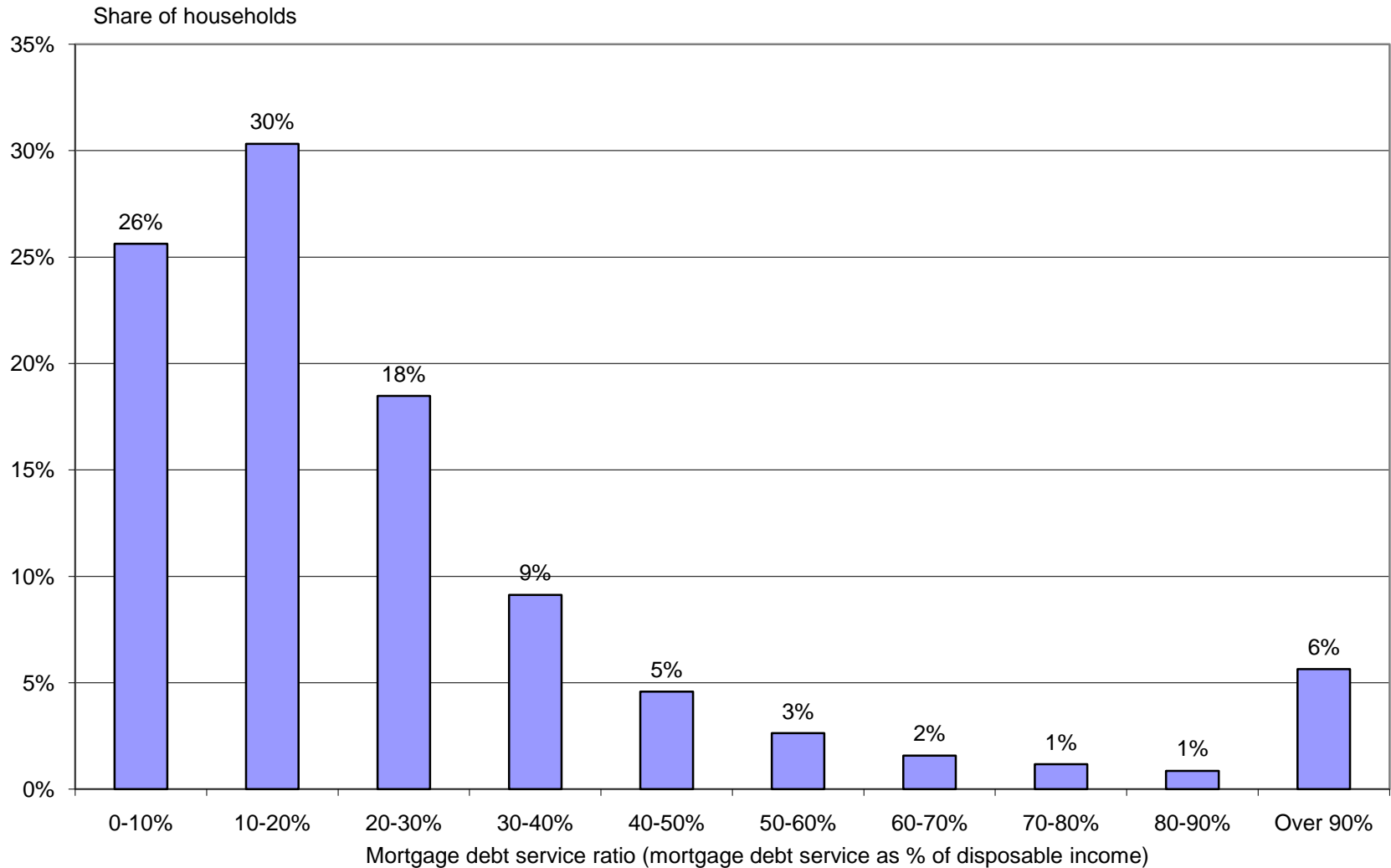




How heavy is household debt service?



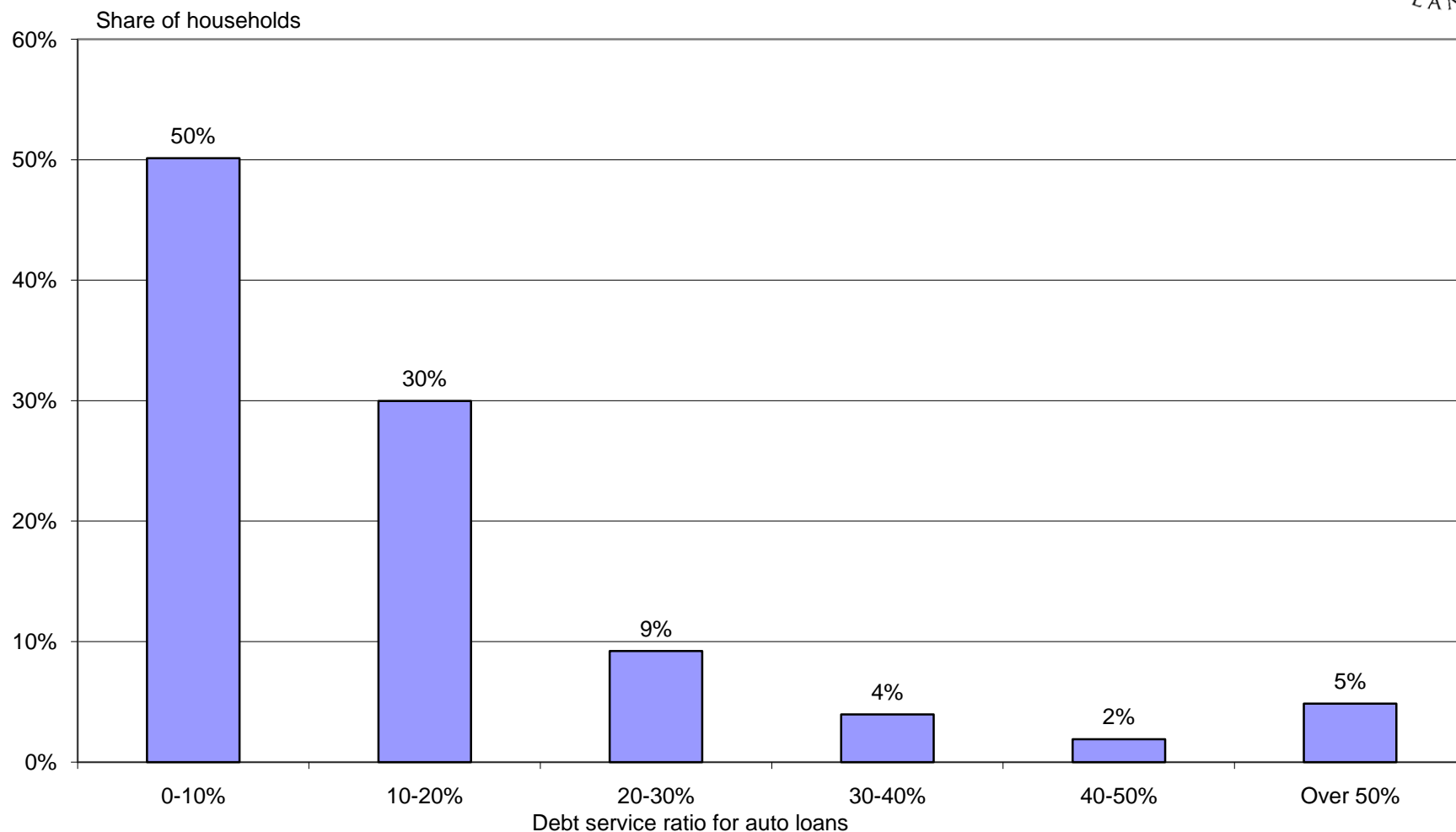
# Debt service on real estate mortgages



\* Excluding some households with mortgage loans where interest or principal payments have been frozen.

Around 74% of households devote less than 30% of their disposable income to service their housing mortgages, but 12% must use over half of their disposable income to service their housing mortgages

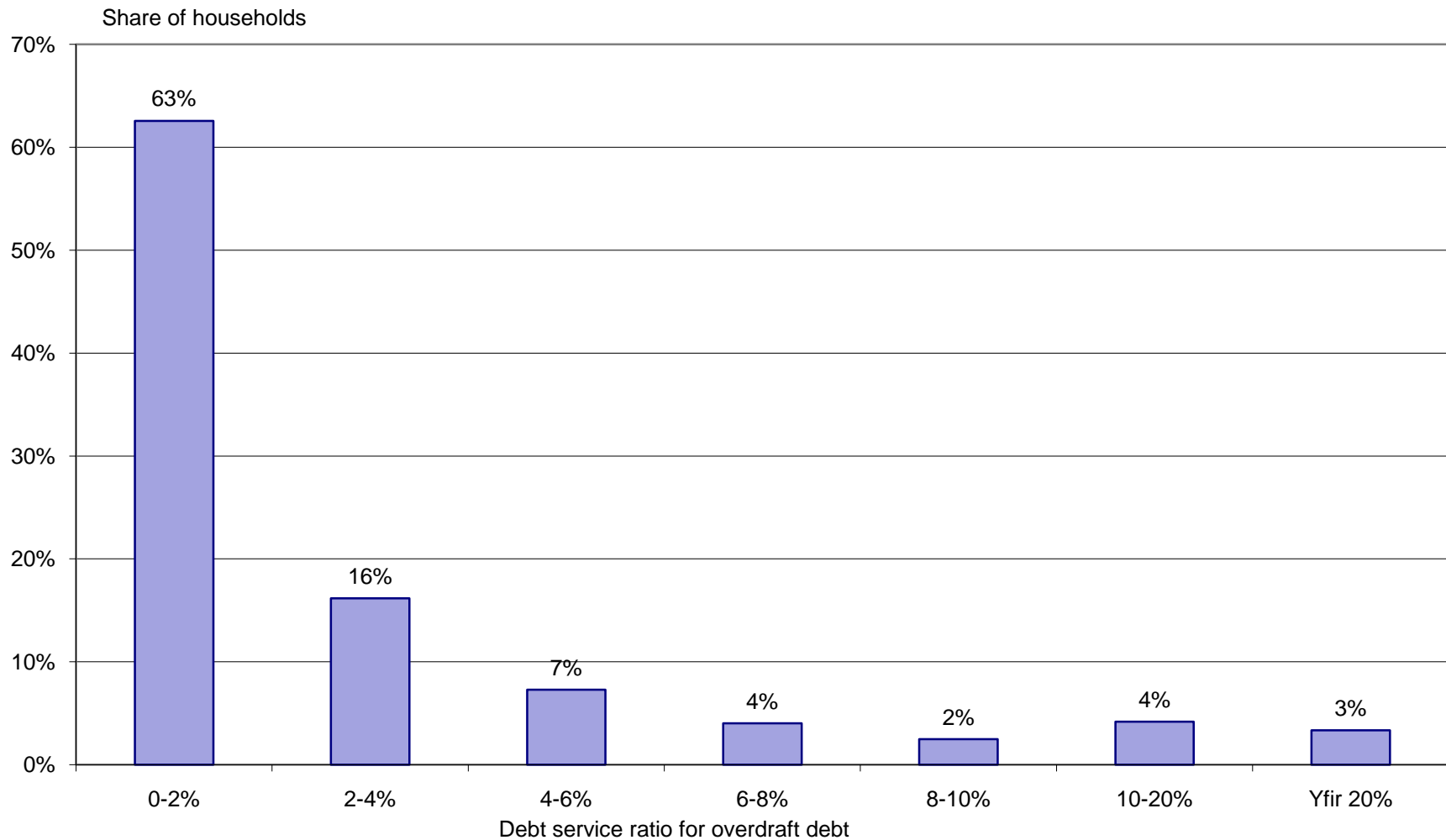
# Debt service on auto loans



\*Excluding most households with auto loans where interest or principal payments have been frozen.

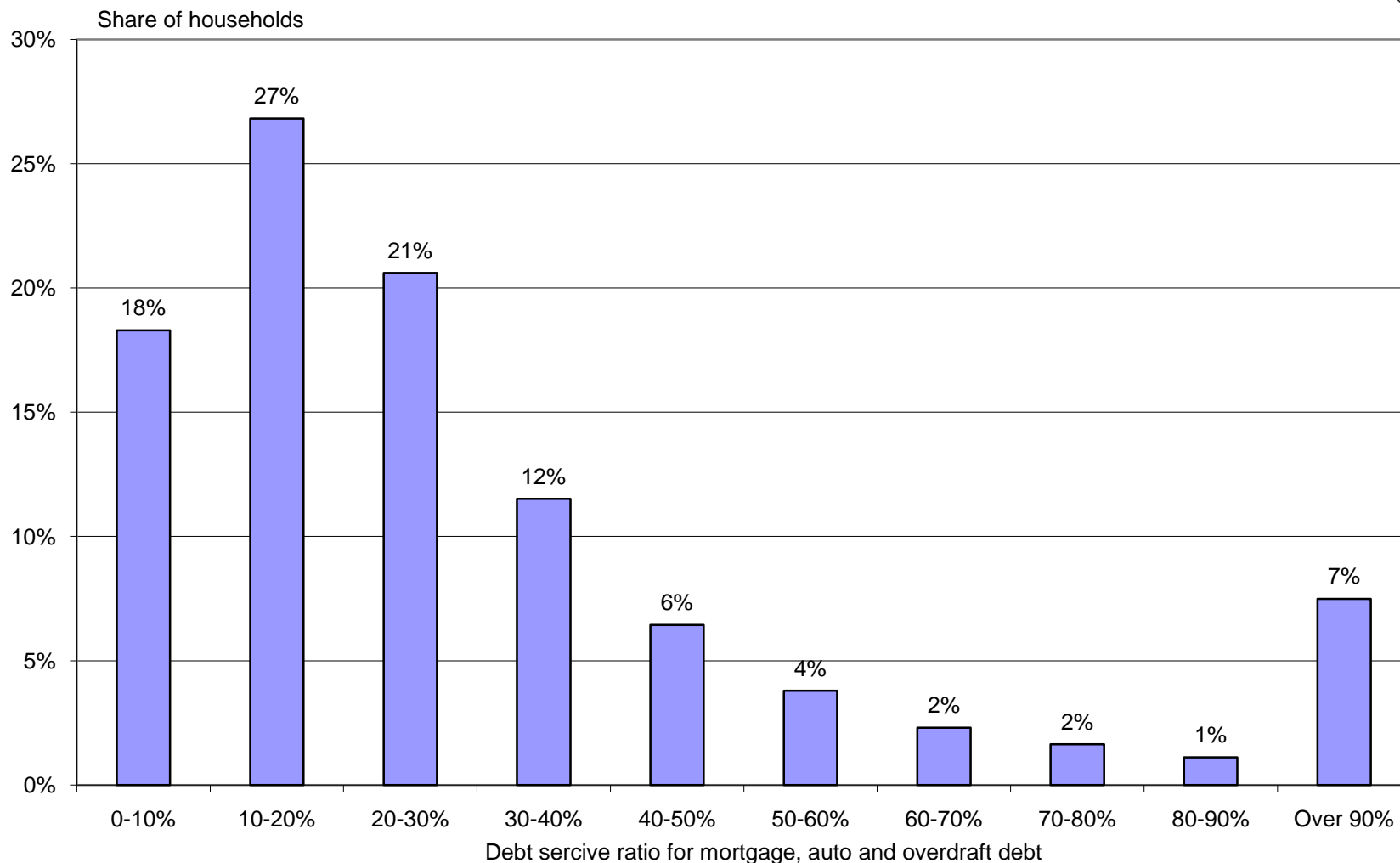
Around 80% of households with auto loans devote less than 20% of their disposable income to payments on such loans, while 11% of households with auto loans have to devote over 30% of their income for payments on these loans

# Overdraft debt service



Around 63% of households with overdraft debt devote less than 2% of their disposable income on interest payments, while 7% of households must devote over 10% of their income in interest payments on their overdrafts

# Total debt service



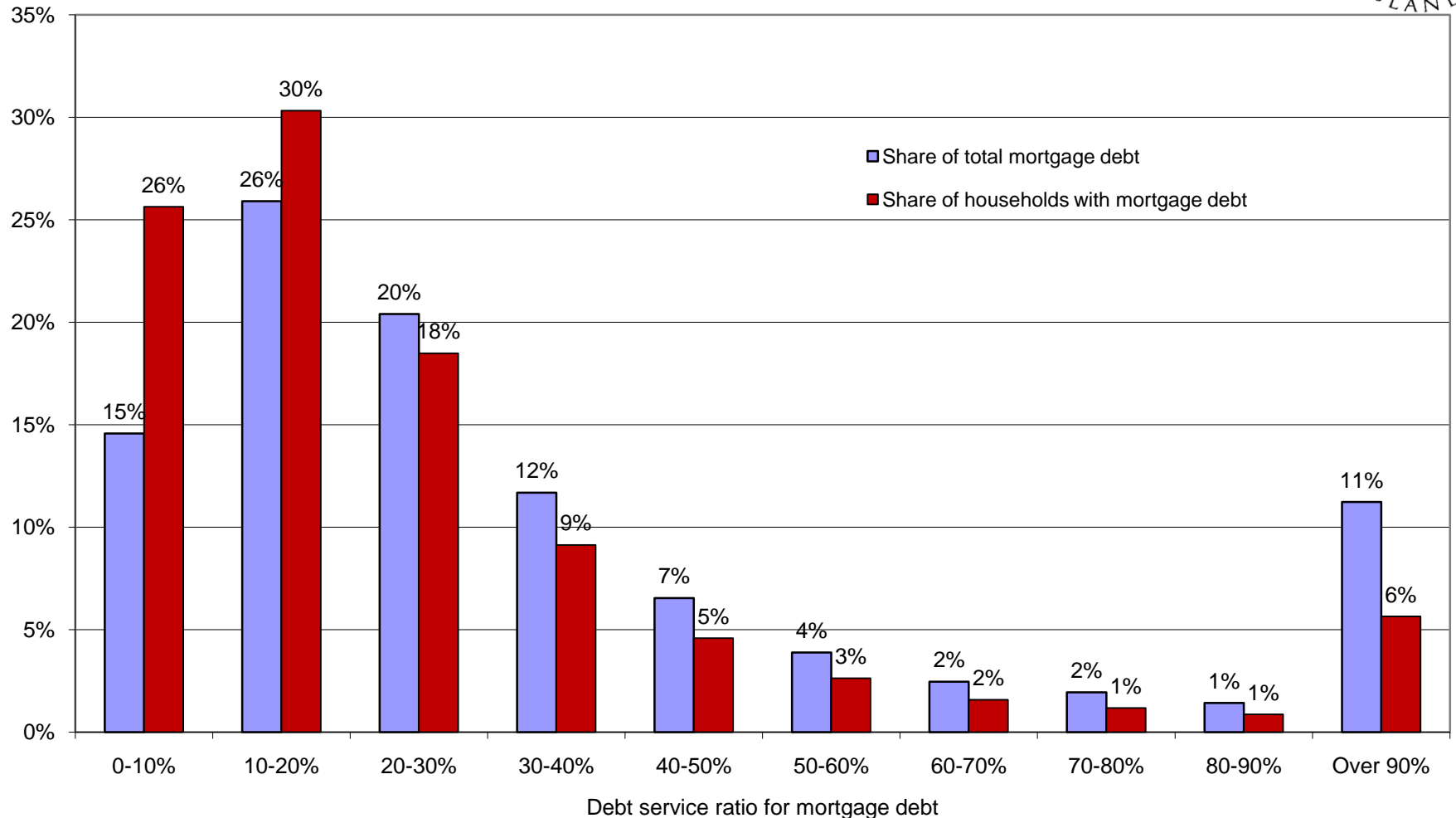
\*Excluding households with loans where interest or principal payments have been frozen.

**Total debt service is less than 40% of the disposable income of around 77% of households, while one in six households must pay more than half of disposable income in payments on loans**



How large a portion of overall household debt is borne by households with high debt service?

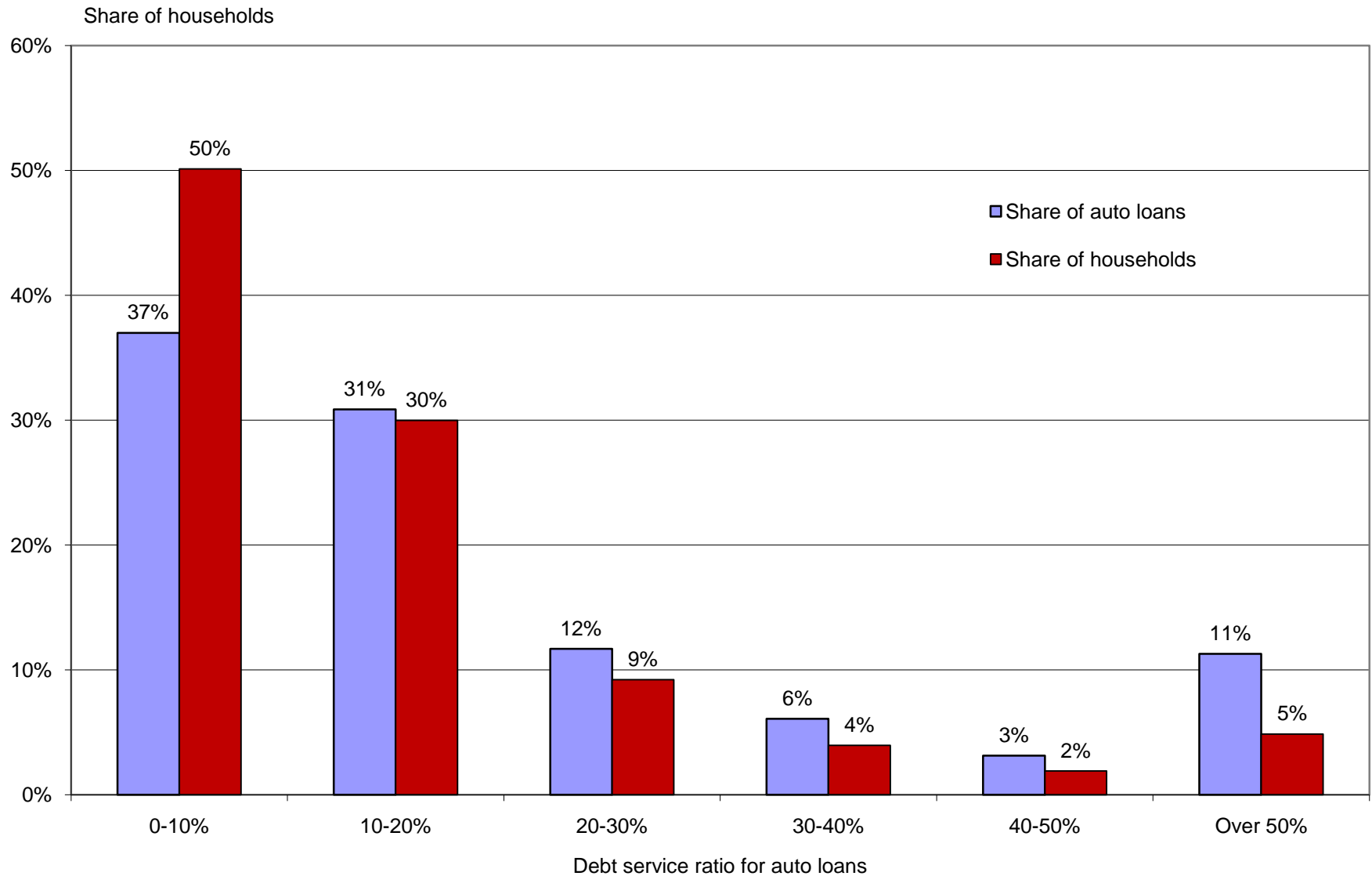
# Breakdown of housing debt by debt service



\*Excluding some households with mortgage loans where interest or principal payments have been frozen.

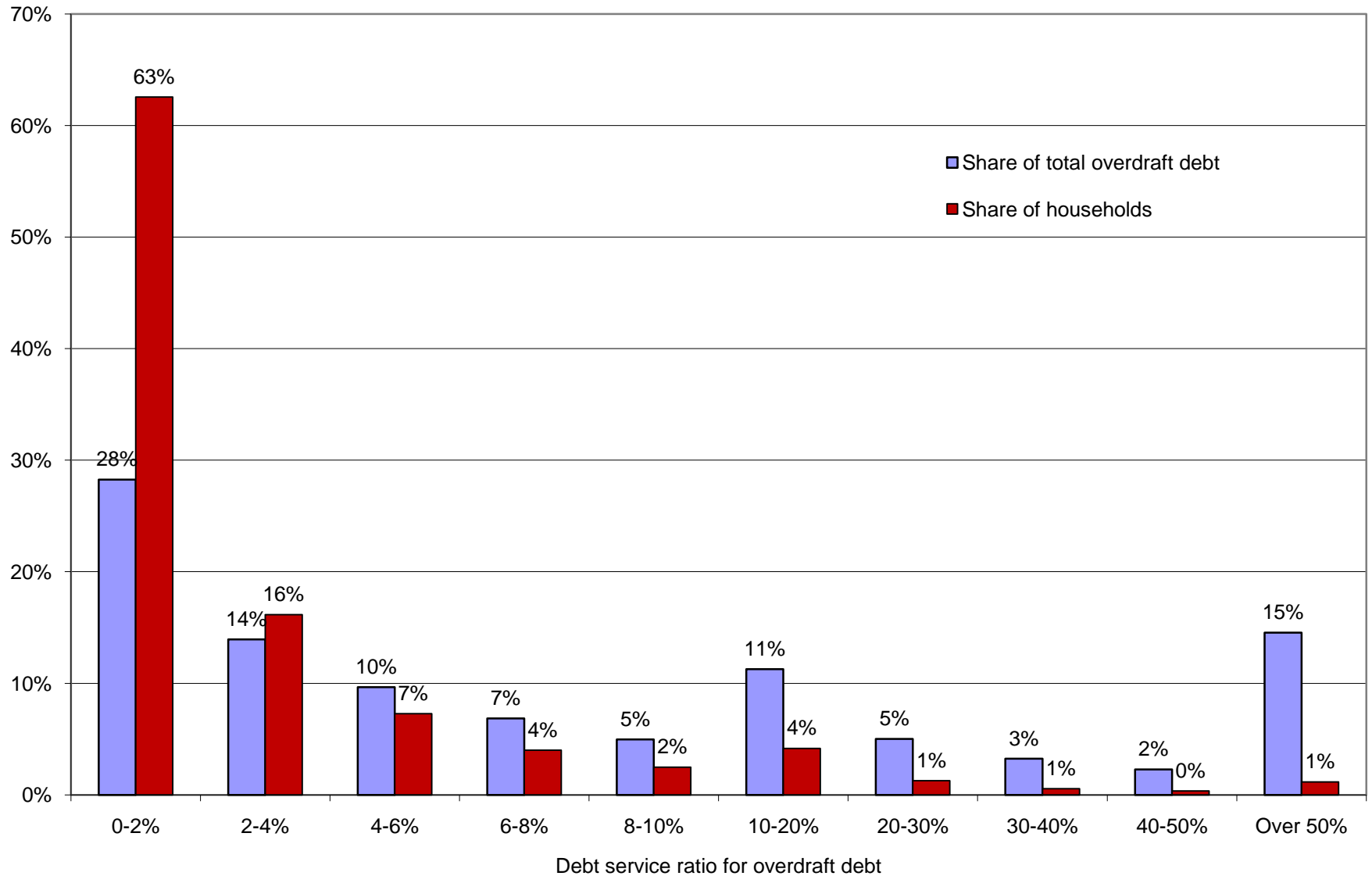
Households whose debt service on housing mortgages is less than 30% account for around 60% of total housing mortgage debt, while households with very heavy debt service (over 50%) account for some 20% of mortgage debt

# Breakdown of auto debt by debt service



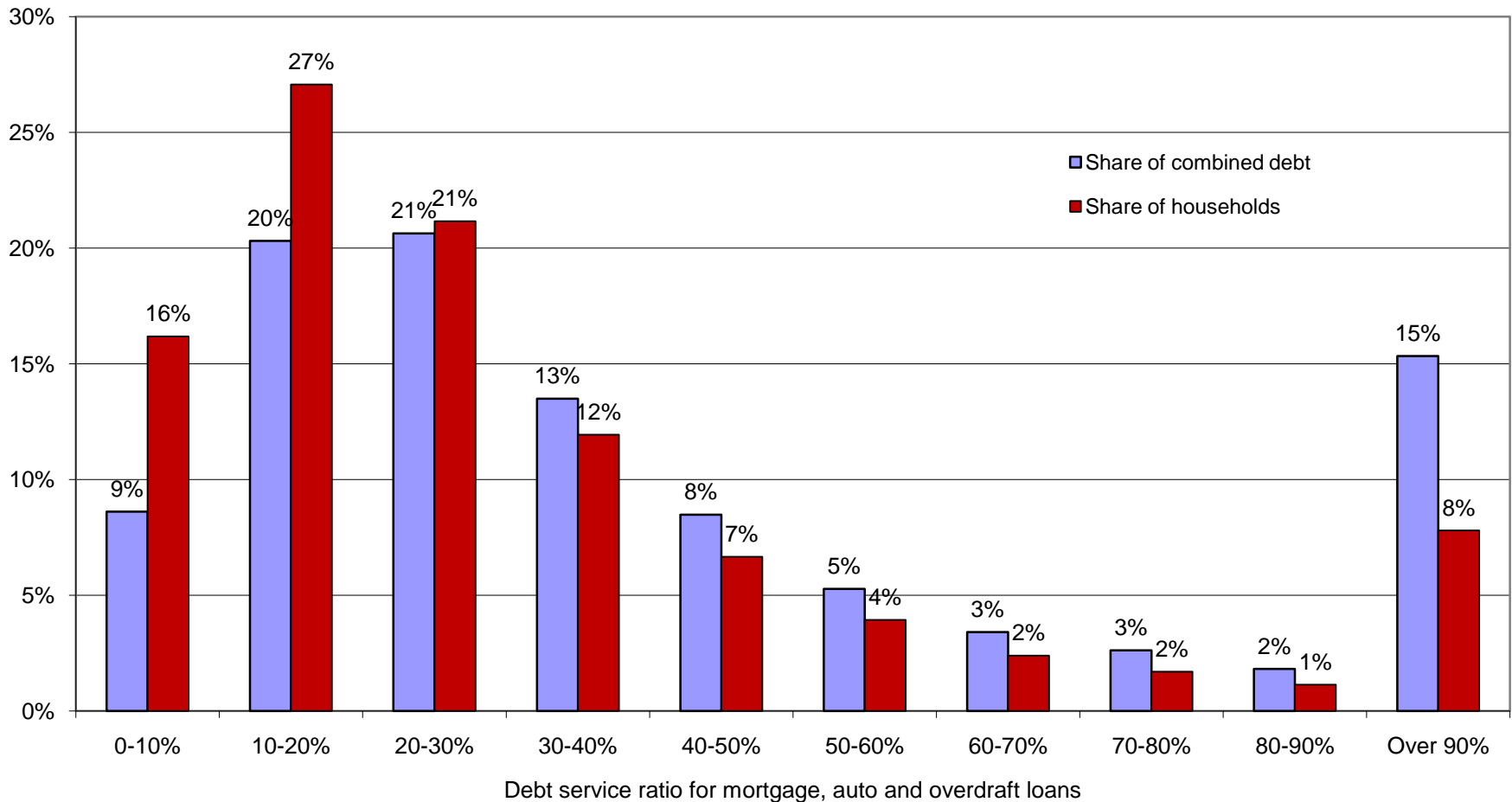
\* Excluding most households with auto loans where interest or principal payments have been frozen.

# Breakdown of overdraft debt by debt service





# Breakdown of combined mortgage, auto and overdraft debt by debt service



\* Excluding households with loans where interest or principal payments have been frozen.

Households whose combined debt service for mortgage, auto and overdraft debt is less than 40% account for around 63% of combined debt, while households with very heavy debt service (over 50%) account for some 28% of combined debt



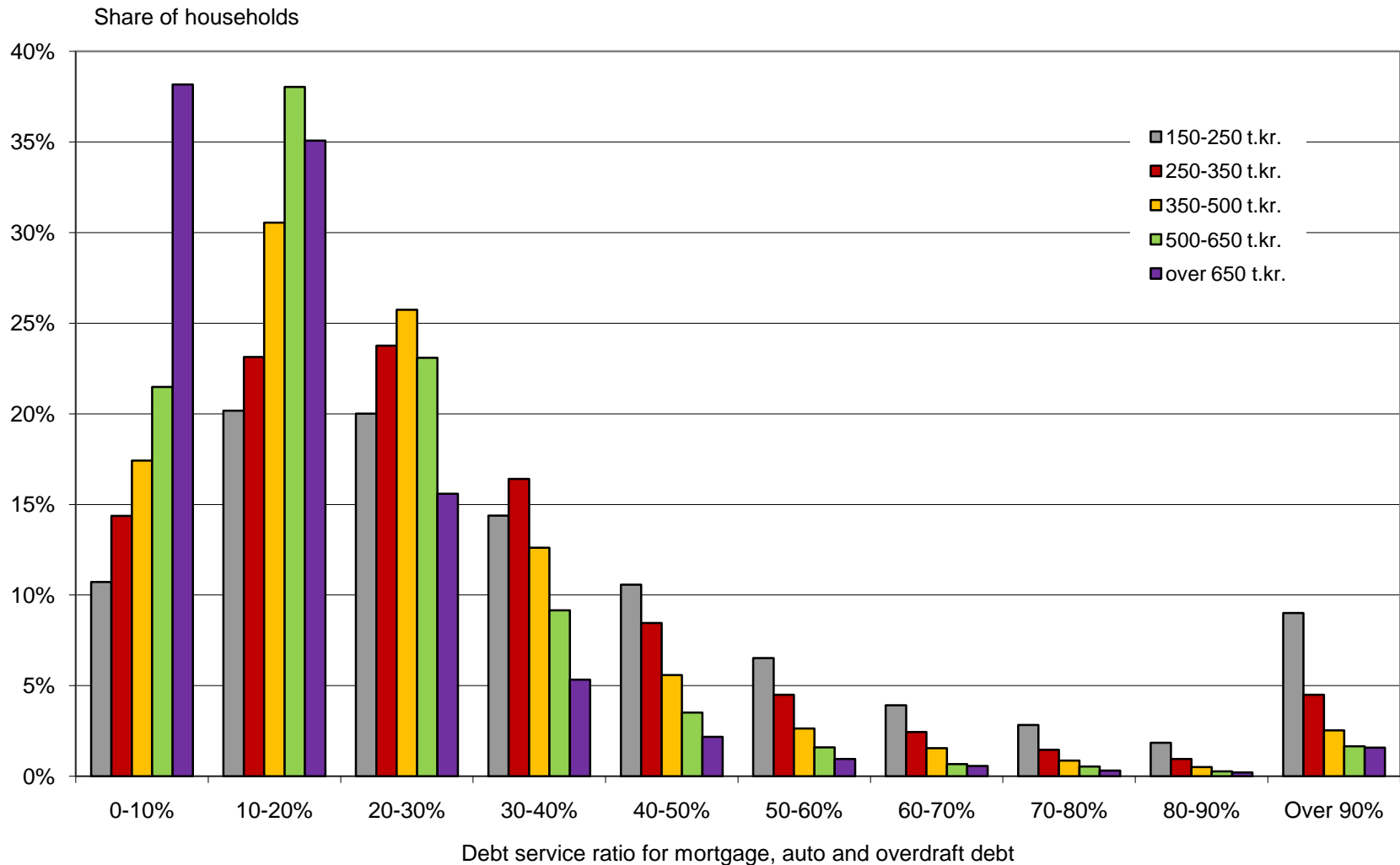
What is the debt service and income distribution of different groups?

# Groups of interest

- Income groups
- Currency groups
- Family patterns



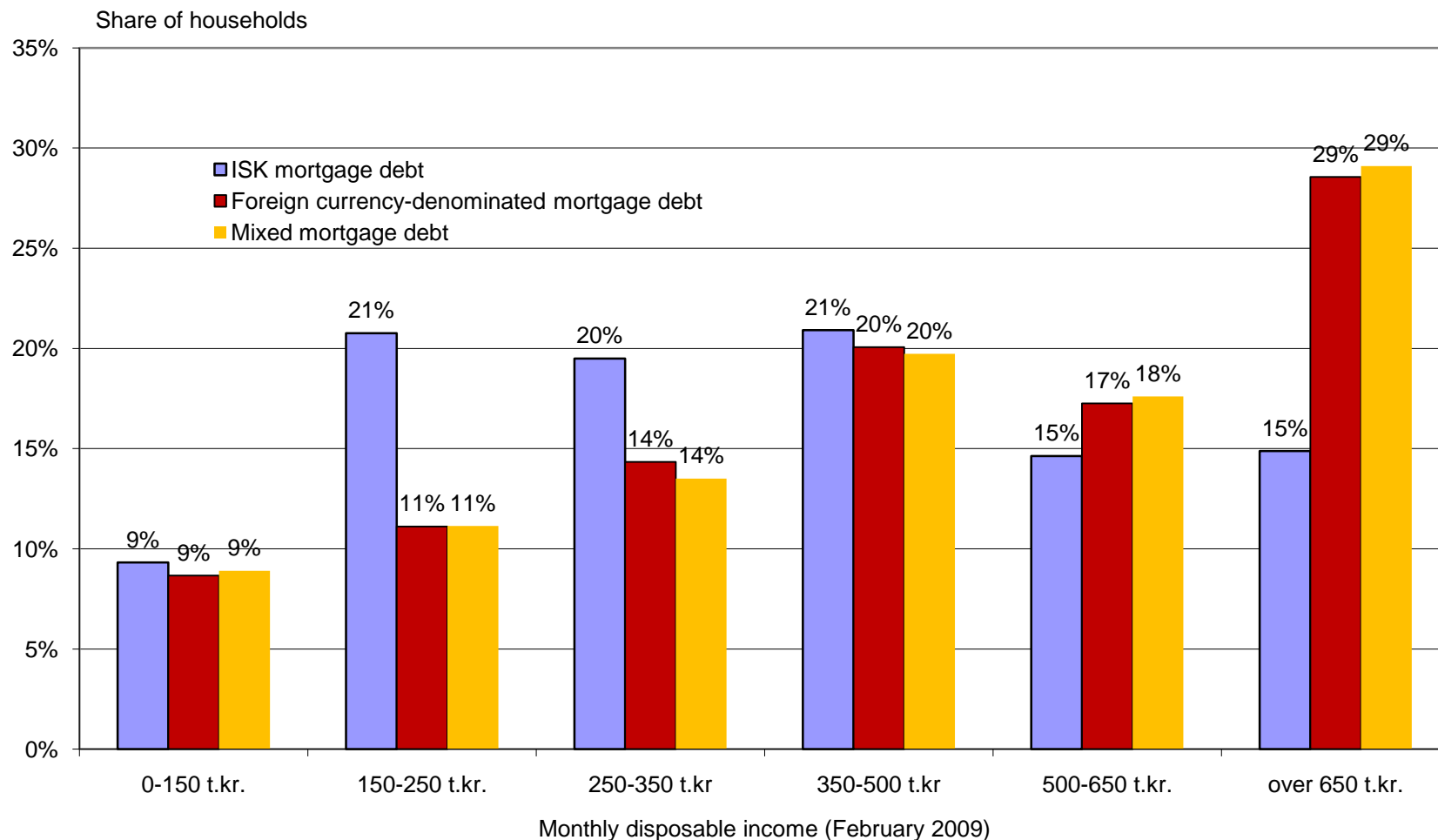
# Breakdown of total debt service by income group



\* Excluding households with loans where interest or principal payments have been frozen.

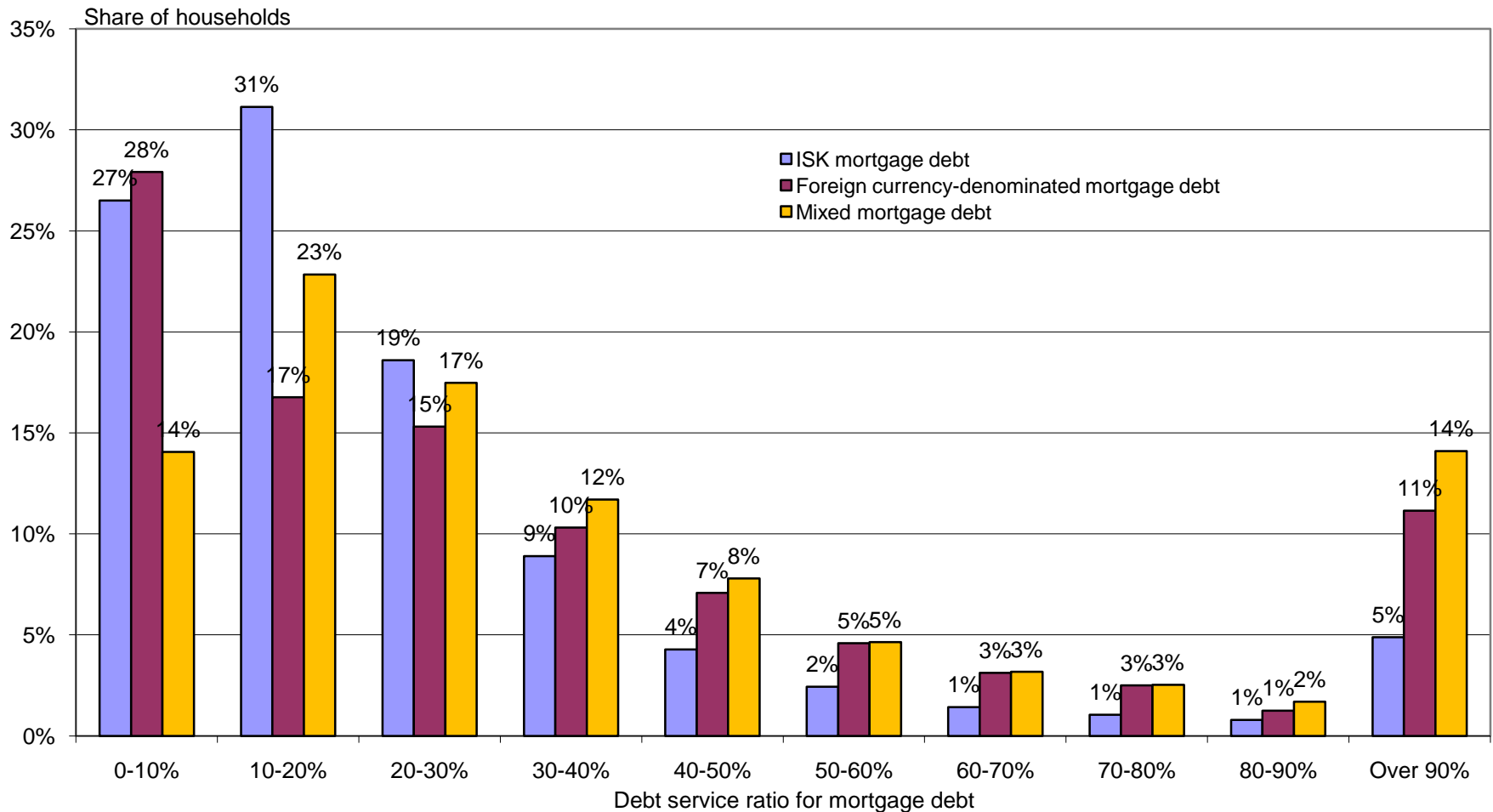
Households with a heavy debt service tend to belong to lower income groups

# Income breakdown of currency groups



Almost half of households with housing mortgages partly or fully foreign-denominated have monthly disposable income over ISK 500,000

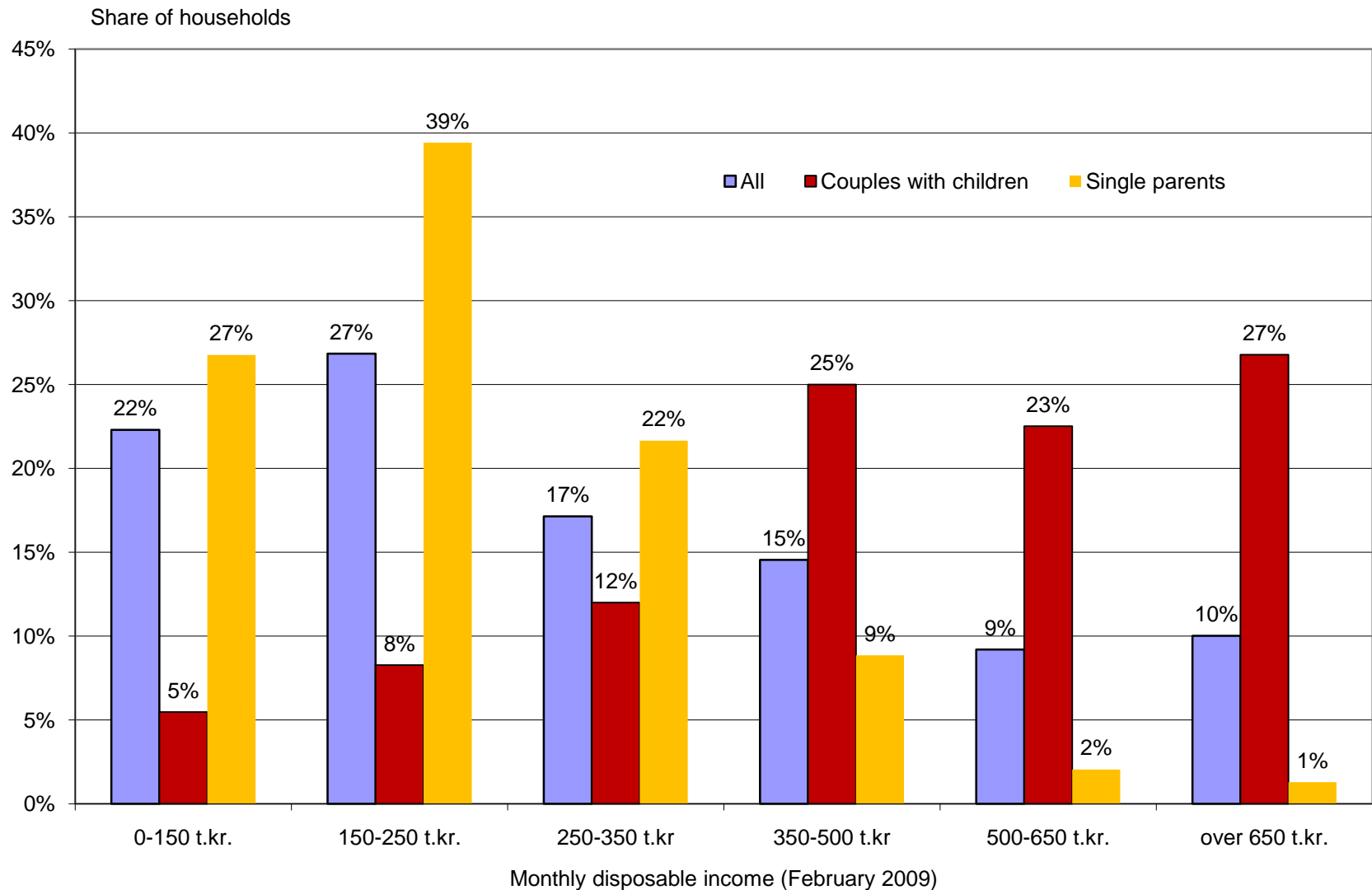
# Breakdown of debt service on housing mortgages by currency group



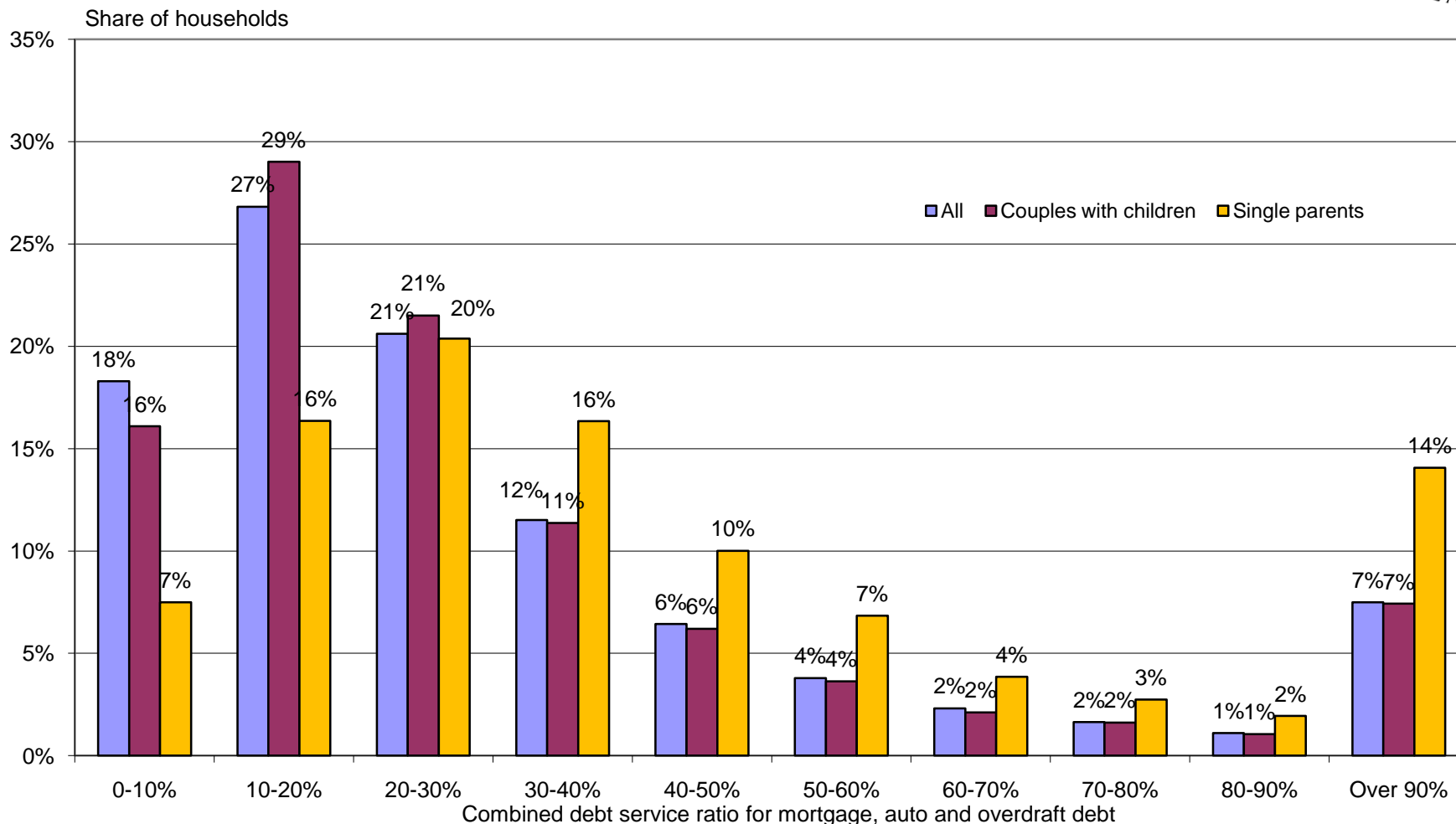
\*Excluding households with mortgages where interest or principal payments have been frozen.

Over half of households with fully or partly foreign-denominated housing mortgages need to devote less than 30% of their disposable income for mortgage payments, while almost one-quarter devote over 50% of their income for mortgage payments

# Income breakdown by family pattern



# Breakdown of total debt service by family pattern



\* Excluding households with loans where interest or principal payments have been frozen.

Around 78% of couples with children and 61% of single parents devote less than 40% of their disposable income for debt service, while 16% of couples and 29% of single parents have very heavy debt service (over 50%)





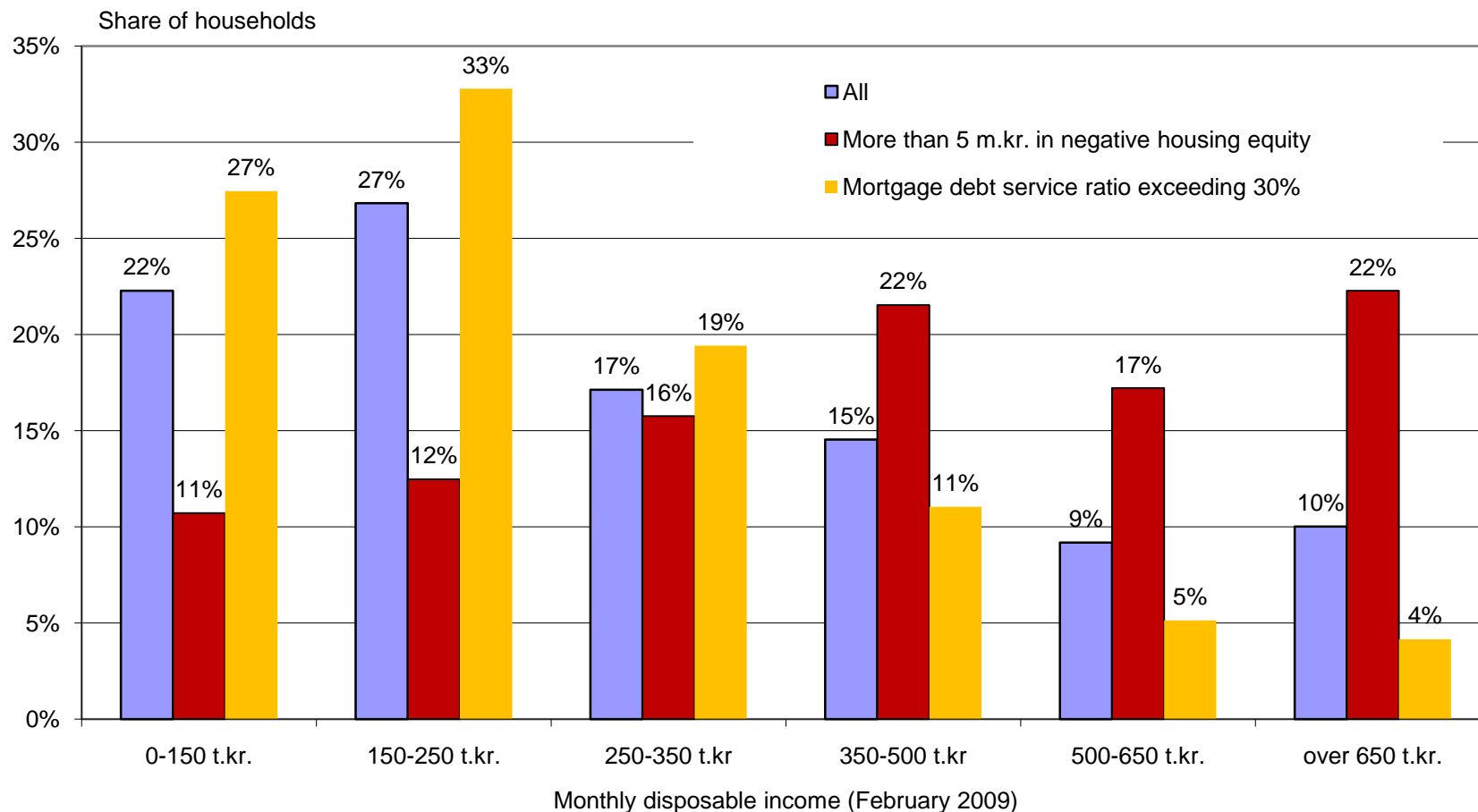
What households are at greatest risk of ending up in difficulty?

# Groups at risk



- Heavy debt service
  - Mortgage payments over 30% of disposable income
  - Debt service on housing, auto and overdraft debt exceed 40% of disposable income
- Negative equity position
  - Negative housing equity (difference between assets and liabilities) over ISK 5 m
  - Negative overall equity position
- Heavy debt service and negative equity position
- Unemployed

# Income breakdown of groups at risk

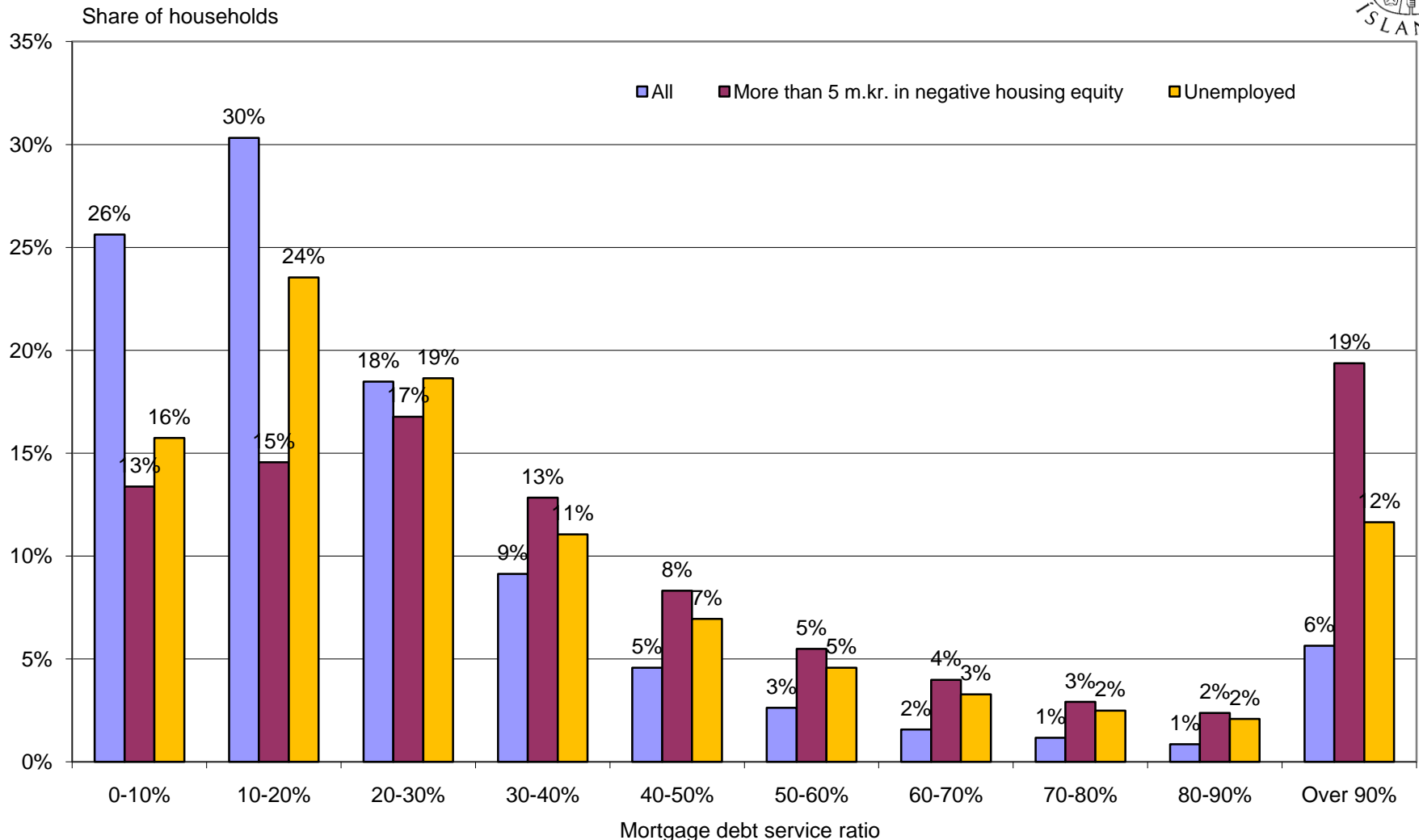


Households with a very negative housing equity position tend to belong to higher income groups and households with heavy debt service tend to belong to lower income groups

# Income breakdown of groups at risk



# Debt service on housing mortgages for groups at risk



\*Excluding households with mortgages where interest or principal payments have been frozen.

Around half of households with very negative housing equity have to devote less than 30% of their disposable income to housing mortgage debt service

# Groups at risk



- **Mortgage payments over 30% of disposable income**
  - Around 26% of households are in this group and account for around 39% of total housing mortgages
  - Around 79% of these households have disposable income of less than ISK 350,000 per month
- **Negative housing equity over ISK 5 m**
  - Around 7% of homeowners are in this group and account for around 19% of total housing mortgages
  - Around 60% of these households have disposable income over ISK 350,000 per month
- **Heavy debt service and negative equity position**
  - Around 2.5% of homeowners are in this group and account for around 8% of total housing mortgages
  - These households are distributed fairly evenly over all income groups

# Groups at risk



- Unemployed and have mortgage payments exceeding 30% of disposable income
  - Around 4.5% of households are in this group
- Unemployed and have negative housing equity over ISK5 m
  - Around 1% of homeowners are in this group
- Unemployed, heavy debt service and very negative housing equity position
  - Less than ½% of homeowners are in this group



# Summary



# Principal conclusions



- Indebtedness of Icelandic households is high by international comparison when measured as a ratio of disposable income
- Debt service appears nonetheless to be manageable for most households, as around 77% of households need to use less than 40% of disposable income to service housing, auto and overdraft debt
- These 77% whose debt service is manageable account for around 63% of total debt
- One in six households has very heavy debt service and must devote over half of disposable income towards payment of loans
- The debts of these households with heavy debt service amount to around 29% of total debt

# Principal conclusions



- As far as families are concerned, 78% of couples with children have manageable debt service while the situation of single parents is more difficult
- Almost half of households with foreign-denominated housing mortgages have over ISK 500,000 in disposable monthly income
- Over half of households with foreign-denominated housing mortgages have manageable debt service, while almost one-quarter has very heavy debt service

# Principal conclusions



- Households with heavy debt service and a tenuous equity position when they suffer loss of income are at greatest risk of ending up in payment difficulties
- Households with highly negative housing equity tend to belong to higher income groups and around half of them have manageable debt service
- Although households with heavy debt service tend to belong to lower income groups, around 68% of them still have positive housing equity
- Around 2.5% of homeowners have both a highly negative equity position and heavy debt service