

**THE DYNAMICS OF HOUSEHOLD
INCOME AND WEALTH: RESULTS
FROM THE PANEL OF THE SPANISH
SURVEY OF HOUSEHOLD FINANCES
(EFF) 2002-2005**

2008

Olympia Bover

**Documentos Ocasionales
N.º 0810**

BANCO DE ESPAÑA
Eurosistema



**THE DYNAMICS OF HOUSEHOLD INCOME AND WEALTH: RESULTS FROM THE
PANEL OF THE SPANISH SURVEY OF HOUSEHOLD FINANCES (EFF) 2002-2005**

**THE DYNAMICS OF HOUSEHOLD INCOME AND WEALTH:
RESULTS FROM THE PANEL OF THE SPANISH SURVEY OF
HOUSEHOLD FINANCES (EFF) 2002-2005**

Olympia Bover

BANCO DE ESPAÑA

The Occasional Paper Series seeks to disseminate work conducted at the Banco de España, in the performance of its functions, that may be of general interest.

The opinions and analyses in the Occasional Paper Series are the responsibility of the authors and, therefore, do not necessarily coincide with those of the Banco de España or the Eurosystem.


The Banco de España disseminates its main reports and most of its publications via the INTERNET at the following website: <http://www.bde.es>.

Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

© BANCO DE ESPAÑA, Madrid, 2008

ISSN: 1696-2222 (print)

ISSN: 1696-2230 (on line)

Depósito legal: M. 53590-2008 

Unidad de Publicaciones, Banco de España

Abstract

The EFF collects detailed information on household assets, debts, income, consumption, and demographic variables. One important characteristic of this survey is that it oversamples high-wealth households. Another important characteristic of the EFF is that the second wave has a full panel component that provides statistical information on transitions among states and individual changes in the variables. The purpose of this work is to use the panel data of the EFF2002-2005 to describe the changes in income, asset holdings, and wealth of Spanish households between the end of 2002 and 2005.

Keywords: wealth, income, distribution of changes, transition probabilities, inequality, mobility

JEL classification: C81, D31

1 Introduction

The Spanish Survey of Household Finances (EFF)¹ collects detailed information on household assets, debts, income and consumption and has now been conducted on two occasions, at end-2002 and at end-2005.² It has been specially designed for the study of household wealth, since it incorporates an oversampling of wealthy households, while also providing a representative picture of the structure of household assets and debts. In addition, it was possible to interview again in 2005 approximately half of the households interviewed in 2002, so that it provides a unique source of information for analysing the dynamics of wealth accumulation in Spain.

Changes in the income and wealth distributions can be studied on the basis of the cross-sectional data for 2002 and 2005. Analysis of the panel households also enables the distribution of the changes in income and wealth between 2002 and 2005 to be studied.³ For example, the percentage of households whose wealth increased during the period can be calculated. Moreover, the EFF 2002-2005 provides a unique opportunity to observe the joint distribution of changes in income and wealth of Spanish households during the period. It is also possible to use these data to analyse mobility in the wealth distribution in contrast to an analysis of changes in inequality. For example, answers can be given to questions of the type: what proportion of households in the lowest wealth quartile in 2002 was in the second quartile in 2005? Also, the net changes observed in holdings of assets between 2002 and 2005 can be disaggregated into flows of purchases and sales by households. Finally, the availability of panel households enables the influence of changes in the demographic structure on the differences between the distributions observed in 2002 and 2005 to be evaluated. This is particularly relevant in this period, given the significant changes in the structure of Spanish households (household size declined, despite the rise in the birth rate; the weights of young households and of those made up of foreigners increased).

This paper uses the EFF 2002-2005 panel household data to describe the changes in the asset holdings, income, and wealth of households between end-2002 and end-2005. The results of this paper complement those described in Banco de España (2008), which compares the results of the complete samples for 2002 and 2005.

Section 2 of this paper summarises the methods of the EFF 2002-2005 panel. Section 3 presents findings relating to the household income and wealth distributions in 2002 and in 2005 using the sample of panel households. Section 4 describes the individual changes in household income and wealth during the period and presents results regarding mobility in the income and wealth distributions. Section 5 analyses the changes in the holdings of certain assets and debts. Finally, Section 6 includes some closing comments.

1. Conducted by the Banco de España (BE), with the collaboration of the National Statistics Institute (INE) and the Tax Authorities (TA).

2. The third wave will be undertaken at end-2008.

3. Fundamental, in this respect, is the distinction between changes in the distributions, i.e. the comparison of two distributions corresponding to two periods, and the distribution of the changes, i.e. the distribution of the individual changes experienced by each of the households observed in both periods.

2 EFF 2002-2005 methods and the sample used

2.1 Background

Since 2002, the Banco de España has been conducting the Spanish Survey of Household Finances (EFF) every three years, with the collaboration of the National Statistics Institute (INE) and the tax authorities (TA). The EFF is the only statistical source in Spain that enables income, assets, debts, and spending to be related to one another at the household level.

A desirable characteristic of the EFF is that its samples incorporate an oversampling of wealthy households, thereby improving the precision of estimates of assets, some of which are only held by a small fraction of the population. This oversampling is achieved using information obtained from wealth tax returns, through a complex mechanism of co-ordination between the three institutions that enables strict confidentiality and anonymity commitments to be observed at all times. For more details on the preparation and methods of the EFF, see Bover (2004, 2008).

2.2 Panel sample

Another important characteristic of the EFF is that it incorporates a panel component. Specifically, 50% of the households who collaborated in the EFF2002 have been re-interviewed in the EFF2005. In addition, a refresher sample has been incorporated, by wealth stratum, to preserve the representativeness of the sample.

The interviewers visited the addresses of all the households that participated in the EFF2002. A household was considered a panel household if at least one of its members was a member of a participating 2002 household. Some of the households interviewed for the EFF2002 were not found at their 2002 address and efforts were made to trace households that had moved to a new address since 2002 to re-interview them. The co-operation rate of the panel sample in 2005 is 67.1%, greater than for the non-panel sample and also similar across the various wealth strata. In total, 2,580 households that participated in the EFF2002 also participated in the EFF2005.⁴

In 731 households of the panel sample (28.3%) there was a significant change in composition owing to the loss of one or more of its adult members or the addition of one or more new ones during the period 2002-2005. In order to compare the situation in 2002 and 2005 of households that can be considered the same at both times, without resorting to econometric adjustments or estimates that are beyond the purpose of this paper, we exclude these households from the analysis. Accordingly, the results that we present refer to the panel sample of 1,849 households whose composition remained unchanged, which we shall refer to as stable households.⁵

The nature of the population reflected by the panel sample used and the degree to which it is representative of the Spanish population in 2002 are described below. The first column of Table 1 gives the proportions of households, for a large number of observed characteristics, obtained from the complete EFF2002 sample. The weights used to obtain them are such that the EFF2002 sample provides representative results for the 2002

4. The EFF2002 sample contains a total of 5,143 households and the EFF2005 sample 5,962.

5. In the following sections, provided no confusion is possible in the context, we shall refer, without distinction, to this panel sample of stable households as the panel sample.

population. These weights, determined by the INE in collaboration with the TA, correct for the sample design and the different non-response rates by strata of wealth or income and observable characteristics of the population. The second column shows the proportions obtained, in this case from the panel sample of stable households, using the same weights as in the previous case. It can be seen that, in general, the characteristics of the panel sub-sample population do not differ from those of the population as a whole. The only groups not adequately represented are the youngest, those that do not own their main residence and those belonging to the bottom quartile of the wealth distribution. This is very possibly a consequence of the lower probability of finding young households and households that do not own their main residence at the same address three years later. The higher proportion of households between 35 and 44 years of age arises as a result of restricting the panel sample to stable households, probably because of the greater stability of the composition of the adult household members in this age group. These differences should be taken into account when the results are analysed, but they are not extreme. We consider that describing the changes in the financial situation of the panel of stable households between 2002 and 2005 is a relevant exercise.⁶

6. The longitudinal weights that correct for the differing non-response rates of the EFF2002 households in 2005 are available for the complete panel sample.

3 Distributions of income and wealth in 2002 and 2005: panel sample of stable households

In this section we present the results on the distributions of household income⁷ and net wealth⁸ in 2002 and 2005, using in both cases the sample of stable panel households. This exercise enables us to further investigate the degree to which these panel households are representative of the total population in 2002. Another important aspect of this exercise is that it enables the situation of households in 2002 and 2005 to be compared, free of effects arising from changes in the structure and composition of the households between the two periods.

In this paper, all variables relating to values of income, wealth and spending are expressed in real terms. Specifically, all the EFF variables in euro are expressed in 2005 euro using the consumer price index (CPI).⁹

3.1 Median and average values

The average and median levels of income obtained using the panel sample (€34,500 and €25,300 respectively, see Table 2) practically coincide with those obtained using the total EFF 2002 sample (€25,200 and €33,500).¹⁰ For some types of household, the panel sample gives slightly higher levels of income, both in terms of the average and the median. This is the case of younger households and households whose heads have a university education. As for the change in income experienced by the panel sample between 2002 and 2005, the fall in the median level of income (-6.3%) is somewhat smaller than that observed when the median levels of income of the EFF2002 and the EFF2005 are compared (-8.5%).¹¹ This figure suggests that around a quarter of the decline in median income between the EFF2002 and the EFF2005 can be attributed to changes in the composition of households during this period. The other three quarters of the decline in median income between 2002 and 2005 remain. Also pointing in this direction is the smaller reduction between 2002 and 2005 in the median income of the bottom quintile of the panel's income distribution. The change in average income between 2002 and 2005 in the two samples is similar: -3.1% in the panel sample and -3.2% in the case of all households.

The growth of per capita income in the EFF between 2002 and 2005 is 2%. The relationship between the positive growth in per capita income and the negative growth in income per household is given by the following identity:

7. The measure of household income used in this paper is total gross household income (including the earned and unearned income of all its members), i.e. before taxes and contributions, corresponding to the whole of the calendar year prior to the survey.

8. Net wealth is defined as the total value of (real and financial) assets less the amount of debts. The value of cars and other vehicles is not included.

9. To convert assets and debts into 2005 euro the EFF 2002 data were multiplied by 1.098. The factors applied to convert household income in the year prior to the survey into 2005 euro were 1.1419 for 2002 and 1.037 for 2005.

10. The results obtained with the complete EFF2002 and EFF2005 samples do not appear in this paper and can be found in Banco de España (2008).

11. The EFF is the only source that enables changes in income to be studied at the household level during this period, since the latest edition of the European Community Household Panel (ECHP, INE) corresponds to 2001 and the first edition of the Survey of Income and Living Conditions (EU-SILC, INE) to 2004. In addition, these two surveys are not directly comparable. It should be noted that the growth in average and per capita incomes resulting from the comparison between the EFF2005 and the EFF2002 is consistent with the national accounts data for these years. Thus, total household income according to the EFF increased by 7.8% while gross household disposable income according to the national accounts increased by 9.5%.

$$\Delta \ln(\text{per capita income}) = \Delta \ln(\text{average household income}) - \Delta \ln(\text{average household size})$$

$$0.02 = -0.03 - (-0.05)$$

That is to say, the 2% increase in per capita income is the result of a 3% decline in income per household, along with a 5% decline in average household size.¹² Income per household is an important concept, insofar as the members of a household share risks and enjoy the consumption of common goods such as housing services, equipment and electricity. In a more detailed analysis it would be possible to obtain intermediate measures between per capita income and income per household using equivalence scales, but that is beyond the scope of this paper.

The net wealth of panel households in 2002 (median €113,900 and average €186,500; see Table 3) is somewhat greater than that of the total population (median €105,300 and average €169,000). This difference is observed at all levels of the wealth distribution and accords, as mentioned above, with the fact that it is easier to locate households who owned their main residence in 2002 three years later. Between 2002 and 2005, the increase in the net wealth of the panel households was similar to that in the net wealth of all the households in the EFF2002 and the EFF2005 (66% and 68%, respectively, in terms of the median, and 52.1% in both cases, in terms of the average). For some types of panel household, the change in the value of net wealth differs from that observed for the 2005 and 2002 populations, in line with the characteristics of the panel sample referred to above. Specifically, the panel households whose head is under the age of 35 experience an increase in their median net wealth of 47.7%, while the median net wealth of this type of household rises by 29% between the EFF2002 and the EFF2005. Also, the median wealth of the bottom quintile of the wealth distribution of the panel sample increased by 76.7%, as against a difference of -34.9% between the same quintiles of the EFF2002 and of the EFF2005.

3.2 Measures of dispersion and concentration

As seen in Table 4, income inequality increases between 2002 and 2005. Thus, dispersion, as measured both by the ratio between the 90th and 10th percentiles and by the ratio between the 75th and 25th percentiles is higher in 2005 (8.35 and 3.04) than in 2002 (7.57 and 2.69), and the Gini coefficient also increases (from 0.419 to 0.465). Also, the percentage of total income in 2005 corresponding to households in the top decile in 2005 is greater than the percentage of total income in 2002 corresponding to the households in the top decile in 2002 (35.5% and 31.3%; see columns 2 and 3 of Table 5).

By contrast, the wealth distribution in 2005 is less unequal than in 2002, as the measures of inter-quantile dispersion and the Gini coefficient in Table 6 indicate.¹³ In turn, households in the top percentile in 2005 owned a smaller part of total net wealth in 2005 (12.1%) than the households in the top percentile in 2002 held in 2002 (15.7%). For the other tranches of the wealth distribution, the percentage of total wealth held is somewhat higher in 2005 than in 2002 (see Table 7).

¹² The average household size is 2.94 members in the EFF2002 and 2.79 in the EFF2005.

¹³ For the complete cross-sectional samples the value of the p90/p10 ratio is considerably higher in 2005 than in 2002 owing to the increase in the percentage of households with negative or zero net wealth (from 4.5% to 7%). However, this does not occur in the panel sample given the over-representation of households who own their main residence.

4 Individual changes in the income and wealth of households between 2002 and 2005

Unlike sequences of independent cross-sectional samples, the panel sample provides information on the change in wealth (or in another magnitude of interest) experienced by each household individually. This section exploits this characteristic of the panel sample and presents results on the distribution of individual changes in income and wealth between 2002 and 2005. It also analyses household mobility across the income and wealth distributions between 2002 and 2005.

4.1 Distributions of individual changes

Figure 1 shows the distribution of individual changes in income between 2002 and 2005 for all the panel households (in terms of their income in 2002), and Figure 2 presents this same distribution by age group.¹⁴ In all, 42% of households have experienced an increase in their income in this period. By age group, this percentage increases with age to reach 45% for households whose head is aged between 45 and 54 and decreases thereafter. Also, there are signs in Figure 2 of bimodality in the distribution of individual changes in income that would point towards a certain polarisation of households into two groups: a first and more numerous group of households that have mostly experienced decreases in their income; and another group of households that have seen their income increase appreciably over the period. However, to be able to draw definitive conclusions in this respect, a more detailed analysis would be needed, taking into account households' relevant characteristics, which is beyond the scope of this study.

As regards individual changes in wealth, 78% of households have seen the value of their net wealth increase. This percentage is highest (83%) for households whose head is aged between 35 and 44 and lowest (72%), as would be expected, following retirement.¹⁵ Figures 3 and 4 present the distributions of these changes, for the whole panel sample and by age group, respectively.

The information provided by the distributions of changes in income and wealth is supplemented by the distribution of changes in household consumption in the same period. As a measure of consumption we use spending on food and other non-durable goods constructed on the basis of the spending variables included in the EFF. Figures 5 and 6 show the distributions of changes in consumption for all households and by age group, respectively. In particular, it can be seen that 49% of households have reduced their spending on nondurable goods between 2002 and 2005.¹⁶

Finally, we obtain information on the joint distribution of changes in the income and wealth of households and present the results in Tables 8 and 9. These are double entry tables of relative frequencies of changes in wealth and income for three tranches of the former (negative growth, up to 100% and over 100%) and for four of the latter (negative growth below 50%, between -50% and 0%, up to 50% and over 50%). The mode of the distribution

14. Age of household head in the 2002 survey.

15. 71.6% for households whose head is aged between 65 and 74, and 72.4% for households whose head is over 74.

16. This reduction in spending on food and other non-durable goods observed in the EFF is consistent with the INE's Household Expenditure Survey (ECPF), according to which average consumption per household in the food and clothing and footwear categories has fallen in real terms between 2002 and 2005.

is clearly in the central cell of households that have suffered reductions in their income but increases in their wealth (Table 8). For any type of change in income, most households have seen their wealth increase. As the change in income increases, the proportion of households that have seen their wealth increase by more than 100% relative to those that have suffered reductions in wealth also increases (Table 8, columns 1 and 3). By age group, the percentage of households that have seen both their income and their wealth decline clearly increases from 64 years old, peaking at 21.7% among the over 74s (see Table 9).¹⁷ As regards the percentage of households that have experienced an increase in both their income and their wealth, this increases with age, peaking for households whose head is aged between 45 and 54 (at 37.9%), and declining again among the oldest group.

4.2 Transition matrices

To analyse the degree of household mobility in relation to income and wealth, Tables 10 and 11 present transition probability matrices for the five pre-established income and wealth tranches. The transition matrix for income, for example, shows the probability that a household will be situated in each tranche of the 2005 income distribution given its position in the 2002 distribution. The tables include transition matrices for all households and for two age groups, the under and over 55s. A more detailed breakdown by age group gives rise to estimates with high standard errors for a large number of cells.

Of the households belonging to the bottom income quintile in 2002, 58% remain in the bottom quintile in 2005, 29.5% have moved to the second lowest quintile, 7.5% to the middle one and 5% to the top two quintiles (Table 10, first matrix). As expected, mobility is greater between adjacent tranches. The higher mobility in the central part of the distribution reflects the fact that, by definition, households in the bottom or top tranche can only move in one direction. As for age differences, persistence is higher for the over 50s than for the under 50s, especially in the bottom and top tranches. Also, in the intermediate tranches the younger group has a greater probability of moving to higher tranches (and a lower one of moving to lower tranches) than the elder group.

The transition probability matrix for wealth displays persistence in the top percentile of the distribution (see Table 11). Of the households belonging to this percentile in 2002, 47% remain in the same one in 2005 while 48.5% have moved to the tranche that includes the nine immediately lower percentiles. By age, the most notable feature is the considerably lower persistence of the eldest group in the top percentile of the distribution (30% as against 68%).

4.3 Mobility vis-à-vis changes in inequality

Another way of analysing the changes in the position of households in the income and wealth distributions is through the percentages of total wealth (or income) in 2002 and 2005 belonging to the households in predetermined tranches of the wealth (or income) distribution in 2002.

The 20% of households with the highest incomes in 2002 obtained 47.9% of the total household income in 2002 and 39.9% of that in 2005 (see columns 2 and 4 of Table 5). The households in the rest of the 2002 quintiles have seen their proportion of total income increase between 2002 and 2005. It should be taken into account that, unlike in the case of the inequality comparisons in the previous section, where households are grouped by their

17. 15.1% for all households.

position in terms of their income in each period, here they are grouped by their position in the initial 2002 distribution, in order to analyse mobility.¹⁸

The percentage of wealth held by the richest 10% of households in 2002 has fallen (from 43.2% to 33.9% in 2005 (see columns 2 and 4 of Table 7), this being consistent with the transition probabilities described above. Meanwhile, those households that have become part of the wealthiest 10% in 2005 have a share in total wealth in 2005 (40%) similar to that which the wealthiest 10% had in 2002 (43.2%), according to the figures in columns 2 and 3 of Table 7.

Tables 12 and 13 show the type of information presented in Tables 2 and 3 on the distribution of income and wealth by household characteristics, with households grouped here by their characteristics in the initial 2002 distributions. In this case, significant increases are observed in median (3.2%) and in average (34%) income between the two periods for those households that in 2002 were in the lower part of the income distribution, which decline and turn into ever greater reductions for the higher strata. As for the distribution of wealth (Table 13), a very sharp increase is seen in the net wealth of households that in 2002 were in the bottom quartile of the wealth distribution (130.6% for the median and 262.5% for the average) and for those households that did not own their main residence in 2002. However, these changes at the ends of the income and wealth distributions reflect natural reversion towards the mean, also known as the Galton fallacy.

18. For a similar table, see Kennickell and Starr-McCluer (1997).

5 Changes in asset holdings and debts

Table 14 shows the percentage of households that did not have a specific asset or debt in 2002, but did have it in 2005, and that of households that had a particular asset or debt in 2002, but not in 2005. These probabilities are presented for all households and for two age groups, the under and over 55s.

The probability of a household acquiring real-estate property other than a main residence during this period, when it did not have this type of asset in 2002, was high (23%), exceeding that for any other asset. As regards financial asset holdings by asset type, comparison of the 2002 and 2005 surveys shows small differences between the percentages of households that had fixed-income securities or unlisted shares. The transition probabilities calculated using the panel sample reveal a high turnover between the two periods.

By age group, the elder group have a lower probability of acquiring any type of financial or real asset (or debt) that they did not have in 2002, except in the case of fixed-income securities.¹⁹ In addition, the elder households have a higher probability of disposing of any type of asset (or debt), except fixed-income securities and unlisted shares or other equity. The most marked differences between the two groups are those that one would expect. In particular, 23.5% of households whose head is under 55 that did not have a pension scheme have obtained one between 2002 and 2005, while this percentage is 7.9% for the elder group. As for debts, the probability of ceasing to have debts in respect of the purchase of a principal residence is higher for the elder age group (35.3%) than for the rest (17.5%).

19. Bank accounts are not considered.

6 Conclusion

This paper describes the changes in the income and wealth of Spanish households between 2002 and 2005 using the panel sample of the EFF. It illustrates the usefulness of the panel component of the EFF for descriptive analysis of the nature of the changes observed in households' financial position. The panel component of the EFF is available for the first time in the EFF2005, so that the changes analysed are for the period 2002-2005 and complement the cross-sectional comparisons made in Banco de España (2008).

REFERENCES

- BANCO DE ESPAÑA (2008). 'Survey of Household Finances (EFF) 2005: methods, results and changes between 2002 and 2005', *Economic Bulletin*, January, Banco de España.
- BOVER, O. (2004). *The Spanish Survey of Household Finances (EFF): description and methods of the 2002 wave*, Occasional Paper No. 0409, Banco de España.
- (2008). *The Spanish Survey of Household Finances (EFF): description and methods of the 2005 wave*, Occasional Paper No. 0803, Banco de España.
- KENNICKELL, A. B., and M. STARR-MCCLUER (1997). 'Household saving and portfolio change: evidence from the 1983-89 SCF panel', *Review of Income and Wealth*, vol. 43 Issue 4, pp. 381-399.

**TABLE 1. CHARACTERISTICS OF THE HOUSEHOLDS IN EFF 2002:
TOTAL 2002 SAMPLE AND PANEL SAMPLE OF STABLE HOUSEHOLDS 2002-2005**

Household characteristics in 2002	Total 2002	Stable panel
ALL HOUSEHOLDS	100.0	100.0
INCOME PERCENTILE		
Less than 20	20.0	18.6
Between 20 and 40	20.0	21.6
Between 40 and 60	20.0	18.6
Between 60 and 80	20.0	21.0
Between 80 and 90	10.0	9.2
Between 90 and 100	10.0	11.1
AGE OF HOUSEHOLD HEAD¹		
Under 35	14.0	9.7
35-44	22.1	28.0
45-54	19.7	20.2
55-54	16.5	15.3
65-74	17.1	17.4
Over 74	10.5	9.4
LABOUR MARKET SITUATION OF HOUSEHOLD HEAD		
Employee	45.7	45.5
Self-employed	11.4	13.6
Retired	25.4	24.8
Other inactive or unemployed	17.5	16.1
LEVEL OF EDUCATION OF HOUSEHOLD HEAD		
Below secondary education	58.8	59.6
Secondary education	26.0	23.7
University education	15.2	16.8
STATUS OF MAIN RESIDENCE		
Ownership	81.9	86.6
Other	18.1	13.4
NUMBER OF HOUSEHOLD MEMBERS WORKING		
None	28.8	29.2
One	38.4	37.2
Two	26.9	30.2
Three or more	5.9	3.4
NUMBER OF HOUSEHOLD MEMBERS		
One	15.2	11.8
Two	25.7	26.4
Three	24.3	25.9
Four	24.3	27.4
Five or more	10.6	8.5
NET WEALTH PERCENTILE		
Less than 25	25.0	20.6
Between 25 and 50	25.0	25.6
Between 50 and 75	25.0	26.4
Between 75 and 90	15.0	16.7
Between 90 and 100	10.0	10.8

¹ A household head is designated as a means of organising the data consistently. The reference person designated by the household for the purposes of replying to the survey is defined as the household head if the reference person is a man, or the partner if the reference person is a woman and her partner lives in the household.

TABLE 2. HOUSEHOLD INCOME
Distribution by household characteristics: Stable panel

Thousands of 2005 euro

Household characteristics for each wave

Household characteristics for each wave	Median			Mean		
	2002	2005	Change	2002	2005	Change
ALL HOUSEHOLDS	25.3 (0.9) ¹	23.7 (0.9)	-1.6	34.5 (1.1)	33.4 (1.6)	-1.1
INCOME PERCENTILE						
Less than 20	9.0	7.5	-1.5	8.9	7.0	-2.0
Between 20 and 40	17.3	14.9	-2.3	17.2	14.9	-2.3
Between 40 and 60	25.3	23.7	-1.6	25.6	23.8	-1.8
Between 60 and 80	37.1	35.3	-1.8	38.0	35.9	-2.2
Between 80 and 90	56.4	51.6	-4.8	57.0	52.4	-4.6
Between 90 and 100	90.3	87.0	-3.3	107.4	118.0	10.5
AGE OF HOUSEHOLD HEAD						
Under 35	30.3	24.4	-5.9	34.2	27.7	-6.5
35-44	29.6	25.9	-3.7	37.5	36.0	-1.5
45-54	33.6	32.7	-0.9	46.5	40.3	-6.2
55-64	25.9	29.5	3.7	36.3	38.9	2.6
65-74	17.8	15.9	-1.9	24.2	29.9	5.7
Over 74	12.0	10.3	-1.7	15.9	15.7	-0.2
LABOUR MARKET SITUATION OF HOUSEHOLD HEAD						
Employee	33.1	30.1	-3.0	40.8	38.9	-1.9
Self-employed	35.2	32.7	-2.5	49.1	46.3	-2.8
Retired	17.8	16.1	-1.6	25.0	27.8	2.8
Other inactive or unemployed	14.3	11.2	-3.1	18.7	17.6	-1.1
LEVEL OF EDUCATION OF HOUSEHOLD HEAD						
Below secondary education	19.1	17.5	-1.6	24.4	23.3	-1.1
Secondary education	31.3	28.8	-2.5	37.8	36.3	-1.5
University education	50.5	44.9	-5.6	64.8	65.2	0.3
STATUS OF MAIN RESIDENCE						
Ownership	26.2	24.6	-1.6	35.6	33.6	-2.0
Other	19.9	18.7	-1.2	27.1	31.8	4.7
NUMBER OF HOUSEHOLD MEMBERS WORKING						
None	13.0	11.5	-1.5	16.3	16.4	0.1
One	25.6	21.9	-3.7	34.3	28.2	-6.1
Two	38.2	36.8	-1.4	48.9	51.8	2.9
Three or more	51.5	44.2	-7.3	63.5	52.3	-11.2
NUMBER OF HOUSEHOLD MEMBERS						
One	10.3	8.7	-1.6	14.3	12.1	-2.2
Two	19.2	15.3	-3.9	25.2	22.3	-3.0
Three	29.2	29.7	0.5	37.4	36.3	-1.1
Four	34.2	31.3	-2.9	44.9	44.5	-0.4
Five or more	36.4	33.1	-3.3	48.6	47.7	-0.9
NET WEALTH PERCENTILE						
Less than 25	17.3	14.5	-2.8	21.6	22.4	0.8
Between 25 and 50	21.7	19.3	-2.4	27.3	24.7	-2.6
Between 50 and 75	28.7	28.0	-0.8	34.2	33.1	-1.2
Between 75 and 90	34.0	35.2	1.2	43.1	43.1	-0.1
Between 90 and 100	57.3	50.6	-6.7	71.8	69.0	-2.8

¹ Bootstrap standard errors in brackets

TABLE 3. HOUSEHOLD NET WEALTH**Distribution by household characteristics: Stable panel**

Thousands of 2005 euro

Household characteristics for each wave	Median			Mean		
	2002	2005	Change	2002	2005	Change
ALL HOUSEHOLDS	113.9 (3.9) ¹	189.1 (5.9)	75.2	186.5 (11.2)	283.7 (11.6)	97.2
INCOME PERCENTILE						
Less than 20	62.5	105.5	43.0	90.9	144.4	53.5
Between 20 and 40	91.2	127.9	36.7	115.0	169.4	54.5
Between 40 and 60	109.0	163.9	55.0	142.7	213.4	70.8
Between 60 and 80	132.7	240.6	107.9	179.3	310.3	130.9
Between 80 and 90	193.2	293.8	100.7	255.5	445.4	189.9
Between 90 and 100	288.6	452.3	163.7	551.2	713.2	162.0
AGE OF HOUSEHOLD HEAD						
Under 35	83.6	123.5	39.9	121.4	156.1	34.7
35-44	112.0	189.7	77.8	147.4	243.6	96.3
45-54	152.5	228.7	76.1	253.3	330.7	77.4
55-64	132.6	242.0	109.4	262.5	429.7	167.1
65-74	117.2	179.1	61.9	171.1	246.2	75.1
Over 74	76.2	119.5	43.3	131.4	198.5	67.1
LABOUR MARKET SITUATION OF HOUSEHOLD HEAD						
Employee	114.1	191.5	77.4	152.4	244.6	92.3
Self-employed	203.6	423.3	219.7	418.9	647.6	228.7
Retired	108.3	177.3	69.0	174.9	242.2	67.3
Other inactive or unemployed	70.7	132.3	61.5	104.3	191.7	87.4
LEVEL OF EDUCATION OF HOUSEHOLD HEAD						
Below secondary education	89.1	148.7	59.6	128.8	203.8	75.0
Secondary education	135.8	212.1	76.3	188.3	320.6	132.3
University education	202.9	306.1	103.1	388.0	514.8	126.9
STATUS OF MAIN RESIDENCE						
Ownership	129.6	210.7	81.1	207.0	317.0	110.0
Other	2.2	6.4	4.2	52.9	58.5	5.5
NUMBER OF HOUSEHOLD MEMBERS WORKING						
None	87.7	137.5	49.8	139.6	210.5	70.9
One	114.8	184.3	69.5	201.3	261.0	59.8
Two	129.6	238.6	109.0	210.3	370.9	160.6
Three or more	142.3	201.2	59.0	215.6	325.9	110.3
NUMBER OF HOUSEHOLD MEMBERS						
One	74.7	120.5	45.7	106.9	168.5	61.6
Two	100.6	164.8	64.1	184.2	237.6	53.4
Three	118.1	210.3	92.3	213.9	328.4	114.5
Four	134.8	211.9	77.1	189.8	300.9	111.0
Five or more	127.8	198.1	70.3	209.6	379.1	169.5
NET WEALTH PERCENTILE						
Less than 25	22.1	39.1	17.0	21.7	38.2	16.5
Between 25 and 50	82.1	138.1	56.1	83.7	140.0	56.3
Between 50 and 75	152.0	241.9	90.0	155.0	245.5	90.5
Between 75 and 90	261.3	413.0	151.7	271.6	426.2	154.6
Between 90 and 100	556.7	823.4	266.7	802.1	1,134.8	332.8

¹ Bootstrap standard errors in brackets

TABLE 4. STATISTICS DESCRIBING THE INCOME DISTRIBUTION.**Stable household panel**

	2002	2005
p10	9.0	7.5
p25	15.6	13.0
p50	25.3	23.7
p75	41.8	39.5
p90	68.4	62.4
p90/p10	7.57	8.35
p75/p25	2.69	3.04
Gini	0.419	0.465

Note: percentiles in thousands of 2005 euro

TABLE 5. DISTRIBUTION OF TOTAL INCOME, BY INCOME PERCENTILE (%)

	% households	% 2002 income based on 2002 percentiles	% 2005 income based on 2005 percentiles	% 2005 income based on 2002 percentiles
Income percentile (Stable household panel)				
Less than 20	20	5.2	4.2	7.1
Between 20 and 40	20	10.0	8.9	12.6
Between 40 and 60	20	14.8	14.3	17.7
Between 60 and 80	20	22.1	21.4	22.6
Between 80 and 90	10	16.6	15.7	14.5
Between 90 and 100	10	31.3	35.5	25.4

TABLE 6. STATISTICS DESCRIBING THE WEALTH DISTRIBUTION.**Stable household panel**

	2002	2005
p10	13.9	24.6
p25	53.7	95.3
p50	113.9	189.1
p75	208.1	323.9
p90	369.1	593.6
p90/p10	26.46	24.14
p75/p25	3.87	3.40
Gini	0.564	0.533

Note: percentiles in thousands of 2005 euro

TABLE 7. DISTRIBUTION OF TOTAL NET WEALTH, BY WEALTH PERCENTILE (%)

	% households	% 2002 net wealth based on 2002 percentiles	% 2005 net wealth based on 2005 percentiles	% 2005 net wealth based on 2002 percentiles
Wealth percentile (stable household panel)				
Less than 25	25	3.0	3.5	7.0
Between 25 and 50	25	11.2	12.3	14.9
Between 50 and 75	25	20.8	21.6	23.1
Between 75 and 90	15	21.8	22.5	21.1
Between 90 and 99	9	27.5	27.9	24.6
Between 99 and 100	1	15.7	12.1	9.3

TABLE 8. JOINT DISTRIBUTION OF CHANGES IN INCOME AND WEALTH OVER THE PERIOD 2002-2005

Change in income¹	Change in net wealth			Total
	<0	0 ≤ < 1	≥ 1	
< -0.5	5.0	7.7	3.8	16.4
-0.5 ≤ < 0	10.1	19.6	12.1	41.7
0 ≤ < 0.5	4.3	12.0	9.1	25.5
≥ 0.5	2.5	7.7	6.2	16.4
Total	21.9	47.0	31.1	100.0

¹ The change in the income of a household is defined as (income in 2005 less income in 2002)/income in 2002. The change in wealth is similarly defined.

TABLE 9. JOINT DISTRIBUTION OF CHANGES IN INCOME AND WEALTH OVER THE PERIOD 2002-2005.

By age group

Age of household head

Under 35

Change in income	Change in net wealth		
	<0	≥ 0	Total
<0	15.4	42.8	58.2
≥ 0	9.0	32.8	41.8
Total	24.4	75.6	100.0

Age of household head

35-44

Change in income	Change in net wealth		
	<0	≥ 0	Total
<0	12.1	46.8	58.9
≥ 0	4.0	37.1	41.1
Total	16.2	83.8	100.0

Age of household head

45-54

Change in income	Change in net wealth		
	<0	≥ 0	Total
<0	13.2	42.4	55.6
≥ 0	6.4	37.9	44.4
Total	19.7	80.3	100.0

Age of household head

55-64

Change in income	Change in net wealth		
	<0	≥ 0	Total
<0	13.1	43.5	56.7
≥ 0	6.9	36.5	43.4
Total	20.0	80.0	100.0

Age of household head

65-74

Change in income	Change in net wealth		
	<0	≥ 0	Total
<0	19.9	40.5	60.4
≥ 0	9.7	29.9	39.6
Total	29.6	70.4	100.0

Age of household head

Over 74

Change in income	Change in net wealth		
	<0	≥ 0	Total
<0	21.7	37.9	59.6
≥ 0	7.8	32.6	40.4
Total	29.5	70.5	100.0

**TABLE 10. 2002-2005 TRANSITION PROBABILITIES FOR THE INCOME DISTRIBUTION
BY INCOME PERCENTILE (stable household panel)**

TOTAL	2005 income percentile						Total	
	2002 income percentile	Less than 20	Between 20 and 40	Between 40 and 60	Between 60 and 80	Between 80 and 90		Between 90 and 100
Less than 20		57.9	29.5	7.5	4.1	0.6	0.5	100.0
Between 20 and 40		24.6	32.3	26.1	13.0	2.1	1.9	100.0
Between 40 and 60		10.1	23.9	32.1	20.8	6.6	6.5	100.0
Between 60 and 80		4.7	9.6	24.6	35.5	16.2	9.5	100.0
Between 80 and 90		2.9	7.0	13.1	29.8	25.2	22.0	100.0
Between 90 and 100		2.6	2.7	6.2	22.6	24.3	41.6	100.0

**Age of household head
< 55**

2002 income percentile	2005 income percentile						Total
	Less than 20	Between 20 and 40	Between 40 and 60	Between 60 and 80	Between 80 and 90	Between 90 and 100	
Less than 20	46.2	35.4	8.1	8.6	1.1	0.6	100.0
Between 20 and 40	17.1	30.5	32.3	14.9	2.4	2.7	100.0
Between 40 and 60	6.7	26.2	31.0	20.5	7.3	8.3	100.0
Between 60 and 80	3.6	8.8	23.8	36.7	16.4	10.8	100.0
Between 80 and 90	1.6	7.2	11.1	31.1	25.0	24.1	100.0
Between 90 and 100	3.5	2.4	5.7	25.0	23.6	39.9	100.0

**Age of household head
≥ 55**

2002 income percentile	2005 income percentile						Total
	Less than 20	Between 20 and 40	Between 40 and 60	Between 60 and 80	Between 80 and 90	Between 90 and 100	
Less than 20	62.7	27.1	7.2	2.2	0.4	0.4	100.0
Between 20 and 40	32.9	34.3	19.3	10.9	1.7	0.9	100.0
Between 40 and 60	15.6	20.3	33.7	21.3	5.4	3.8	100.0
Between 60 and 80	7.7	11.8	26.9	32.0	15.8	5.7	100.0
Between 80 and 90	6.0	6.6	18.3	26.6	26.1	16.4	100.0
Between 90 and 100	0.2	3.5	7.6	15.5	26.3	46.8	100.0

**TABLE 11. 2002-2005 TRANSITION PROBABILITIES FOR THE NET WEALTH DISTRIBUTION
BY NET WEALTH PERCENTILE (stable household panel)**

TOTAL	2005 net wealth percentile						Total
	2002 net wealth percentile	Less than 25	Between 25 and 50	Between 50 and 75	Between 75 and 90	Between 90 and 99	
Less than 25	68.9	23.0	4.8	2.3	1.0	0.0	100.0
Between 25 and 50	20.5	46.1	26.1	6.4	0.9	0.0	100.0
Between 50 and 75	7.9	25.1	46.3	17.1	3.2	0.3	100.0
Between 75 and 90	4.3	7.7	32.7	40.5	14.1	0.8	100.0
Between 90 and 99	0.4	3.4	8.5	27.2	56.9	3.6	100.0
Between 99 and 100	0.0	0.0	0.6	4.0	48.5	47.0	100.0

Age of household head < 55	2005 net wealth percentile						Total
	2002 net wealth percentile	Less than 25	Between 25 and 50	Between 50 and 75	Between 75 and 90	Between 90 and 99	
Less than 25	68.2	24.3	4.6	2.1	0.8	0.0	100.0
Between 25 and 50	13.2	51.4	27.8	6.7	0.9	0.0	100.0
Between 50 and 75	6.9	21.8	50.1	17.4	3.2	0.5	100.0
Between 75 and 90	2.7	6.4	34.5	39.9	15.3	1.3	100.0
Between 90 and 99	0.6	2.8	8.4	30.9	53.6	3.6	100.0
Between 99 and 100	0.0	0.0	0.8	1.4	29.7	68.1	100.0

Age of household head ≥ 55	2005 net wealth percentile						Total
	2002 net wealth percentile	Less than 25	Between 25 and 50	Between 50 and 75	Between 75 and 90	Between 90 and 99	
Less than 25	69.7	21.4	5.2	2.4	1.3	0.0	100.0
Between 25 and 50	30.6	38.8	23.8	5.9	0.9	0.0	100.0
Between 50 and 75	9.4	30.4	40.3	16.8	3.1	0.0	100.0
Between 75 and 90	6.5	9.6	30.3	41.2	12.3	0.1	100.0
Between 90 and 99	0.0	4.3	8.6	22.2	61.4	3.6	100.0
Between 99 and 100	0.0	0.0	0.4	6.5	63.1	30.0	100.0

TABLE 12. HOUSEHOLD INCOME

Distribution by household characteristics: stable panel

Thousands of 2005 euro
Household characteristics in 2002

	Median			Mean		
	2002	2005	Change	2002	2005	Change
ALL HOUSEHOLDS	25.3 (0.9) ¹	23.7 (0.9)	-1.6	34.5 (1.1)	33.4 (1.6)	-1.1
INCOME PERCENTILE IN 2002						
Less than 20	9.0	9.3	0.3	8.9	12.0	3.0
Between 20 and 40	17.3	16.9	-0.4	17.2	21.0	3.7
Between 40 and 60	25.3	23.8	-1.5	25.6	29.7	4.1
Between 60 and 80	37.1	33.4	-3.6	38.0	37.7	-0.3
Between 80 and 90	56.4	42.7	-13.7	57.0	48.3	-8.6
Between 90 and 100	90.3	55.9	-34.3	107.4	84.6	-22.8
AGE OF HOUSEHOLD HEAD IN 2002						
Under 35	30.3	25.8	-4.5	34.2	32.8	-1.4
35-44	29.6	26.6	-3.0	37.5	36.3	-1.2
45-54	33.6	33.8	0.2	46.5	42.1	-4.4
55-64	25.9	25.7	-0.2	36.3	33.7	-2.7
65-74	17.8	14.5	-3.3	24.2	29.1	4.9
Over 74	12.0	10.8	-1.2	15.9	14.6	-1.3
LABOUR MARKET SITUATION OF HOUSEHOLD HEAD IN 2002						
Employee	33.1	30.6	-2.5	40.8	38.3	-2.5
Self-employed	35.2	31.8	-3.4	49.1	45.8	-3.3
Retired	17.8	14.9	-2.9	25.0	27.2	2.2
Other inactive or unemployed	14.3	12.6	-1.7	18.7	18.7	0.0
LEVEL OF EDUCATION OF HOUSEHOLD HEAD IN 2002						
Below secondary education	19.1	17.2	-2.0	24.4	22.8	-1.6
Secondary education	31.3	30.6	-0.7	37.8	36.7	-1.1
University education	50.5	45.2	-5.3	64.8	65.8	1.0
STATUS OF MAIN RESIDENCE IN 2002						
Ownership	26.2	24.6	-1.5	35.6	33.4	-2.2
Other	19.9	19.2	-0.7	27.1	33.2	6.1
NUMBER OF HOUSEHOLD MEMBERS WORKING IN 2002						
None	13.0	11.4	-1.6	16.3	15.8	-0.6
One	25.6	23.2	-2.4	34.3	31.5	-2.8
Two	38.2	36.9	-1.2	48.9	50.4	1.5
Three or more	51.5	43.3	-8.2	63.5	55.0	-8.4
NUMBER OF HOUSEHOLD MEMBERS IN 2002						
One	10.3	8.7	-1.6	14.3	12.1	-2.2
Two	19.2	16.9	-2.4	25.2	23.9	-1.3
Three	29.2	29.2	0.0	37.4	36.1	-1.3
Four	34.2	31.5	-2.7	44.9	44.1	-0.8
Five or more	36.4	34.2	-2.2	48.6	50.0	1.4
NET WEALTH PERCENTILE IN 2002						
Less than 25	17.3	15.5	-1.8	21.6	24.4	2.9
Between 25 and 50	21.7	21.2	-0.5	27.3	25.5	-1.8
Between 50 and 75	28.7	27.4	-1.3	34.2	32.8	-1.5
Between 75 and 90	34.0	32.8	-1.2	43.1	42.0	-1.1
Between 90 and 100	57.3	44.0	-13.4	71.8	64.0	-7.8

¹ Bootstrap standard errors in brackets

TABLE 13. HOUSEHOLD NET WEALTH
Distribution by household characteristics: stable panel

Thousands of 2005 euro
Household characteristics in 2002

	Median			Mean		
	2002	2005	Change	2002	2005	Change
ALL HOUSEHOLDS	113.9 (3.9) ¹	189.1 (5.9)	75.2	186.5 (11.2)	283.7 (11.6)	97.2
INCOME PERCENTILE IN 2002						
Less than 20	62.5	108.1	45.6	90.9	146.9	55.9
Between 20 and 40	91.2	144.4	53.2	115.0	200.5	85.6
Between 40 and 60	109.0	183.0	74.0	142.7	226.4	83.7
Between 60 and 80	132.7	222.3	89.6	179.3	277.4	98.1
Between 80 and 90	193.2	287.3	94.2	255.5	392.0	136.6
Between 90 and 100	288.6	438.9	150.3	551.2	738.9	187.8
AGE OF HOUSEHOLD HEAD IN 2002						
Under 35	83.6	140.5	56.9	121.4	193.6	72.2
35-44	112.0	196.1	84.2	147.4	256.9	109.6
45-54	152.5	242.6	90.1	253.3	386.4	133.1
55-64	132.6	211.9	79.3	262.5	347.4	84.8
65-74	117.2	172.4	55.2	171.1	243.1	72.0
Over 74	76.2	118.7	42.6	131.4	207.4	76.0
LABOUR MARKET SITUATION OF HOUSEHOLD HEAD IN 2002						
Employee	114.1	192.3	78.2	152.4	254.9	102.5
Self-employed	203.6	346.5	142.9	418.9	555.3	136.4
Retired	108.3	165.1	56.7	174.9	255.0	80.1
Other inactive or unemployed	70.7	125.4	54.6	104.3	179.7	75.4
LEVEL OF EDUCATION OF HOUSEHOLD HEAD IN 2002						
Below secondary education	89.1	143.5	54.4	128.8	200.4	71.6
Secondary education	135.8	218.2	82.4	188.3	319.5	131.1
University education	202.9	310.4	107.4	388.0	522.9	134.9
STATUS OF MAIN RESIDENCE IN 2002						
Ownership	129.6	208.2	78.6	207.0	308.6	101.5
Other	2.2	11.7	9.5	52.9	121.8	68.9
NUMBER OF HOUSEHOLD MEMBERS WORKING IN 2002						
None	87.7	141.2	53.5	139.6	213.3	73.7
One	114.8	188.3	73.5	201.3	281.2	80.0
Two	129.6	239.2	109.6	210.3	347.4	137.1
Three or more	142.3	237.3	95.0	215.6	349.0	133.4
NUMBER OF HOUSEHOLD MEMBERS IN 2002						
One	74.7	120.5	45.7	106.9	168.5	61.6
Two	100.6	165.9	65.2	184.2	239.5	55.3
Three	118.1	199.1	81.0	213.9	320.1	106.3
Four	134.8	217.5	82.8	189.8	308.6	118.8
Five or more	127.8	196.6	68.8	209.6	389.4	179.8
NET WEALTH PERCENTILE IN 2002						
Less than 25	22.1	51.0	28.9	21.7	78.6	56.9
Between 25 and 50	82.1	149.1	67.0	83.7	169.7	86.0
Between 50 and 75	152.0	223.7	71.8	155.0	261.2	106.2
Between 75 and 90	261.3	353.7	92.4	271.6	399.9	128.3
Between 90 and 100	556.7	707.2	150.5	802.1	958.0	156.0

¹ Bootstrap standard errors in brackets

TABLE 14. CHANGES IN ASSET HOLDINGS AND DEBTS.

Stable household panel (%)

	Prob. (Asset held in 2005=1 Asset held in 2002 =0)			Prob. (Asset held in 2005=0 Asset held in 2002 =1)		
	Total	Age of household head		Total	Age of household head	
		< 55	≥ 55		< 55	≥ 55
Real-estate properties other than main residence	23.0	24.2	21.2	21.6	18.9	25.0
Businesses related to self-employment	4.33	5.33	3.10	28.6	27.6	31.6
Listed shares	4.5	5.5	3.3	30.1	26.4	36.8
Unlisted shares and other equity	2.0	2.6	1.1	81.4	83.9	74.6
Fixed-income securities	1.4	1.1	1.7	86.0	91.1	79.3
Mutual funds	6.4	7.0	5.6	49.0	46.7	53.4
Pension schemes	15.8	23.5	7.9	17.8	13.9	30.6
Some type of financial asset other than a bank account	21.4	29.9	12.7	19.7	15.9	28.1
Debt for acquisition of main residence	4.3	7.5	1.4	19.2	17.5	35.3
Debt for acquisition of other real-estate properties	5.5	7.9	2.4	43.5	36.7	71.6
Other debts	2.3	3.7	0.7	0	0	0
Any debt	21.9	35.8	13.1	18.6	13.7	37.8

Figure 1: Distribution of changes in income 2002-2005

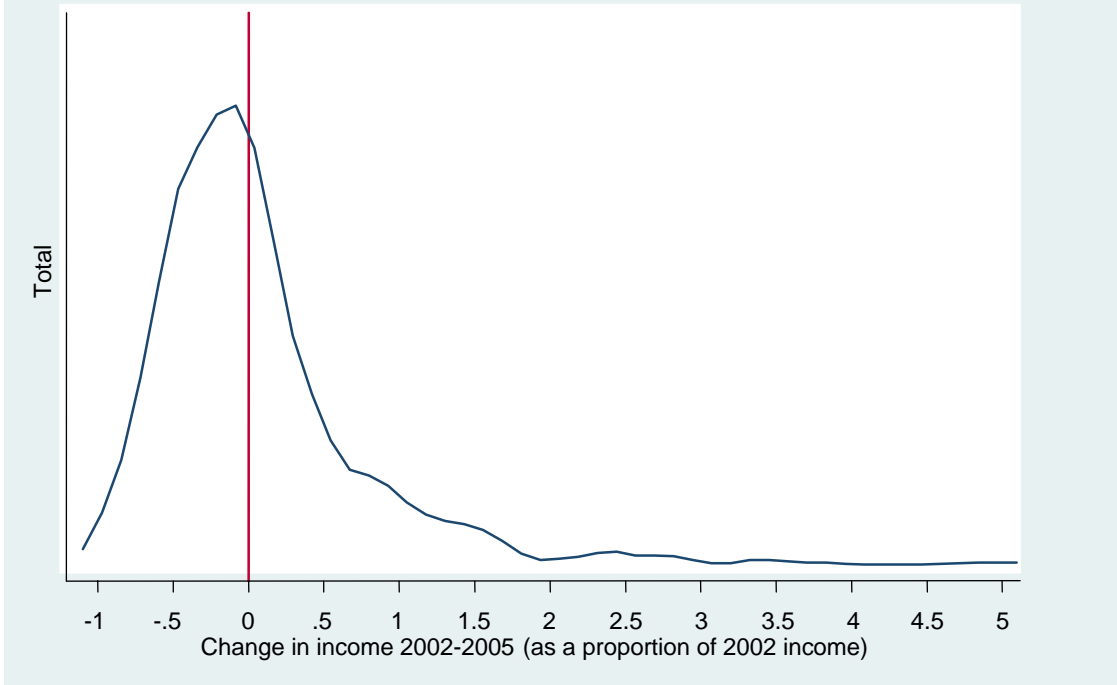


Figure 2: Distribution of changes in income 2002-2005. By age group

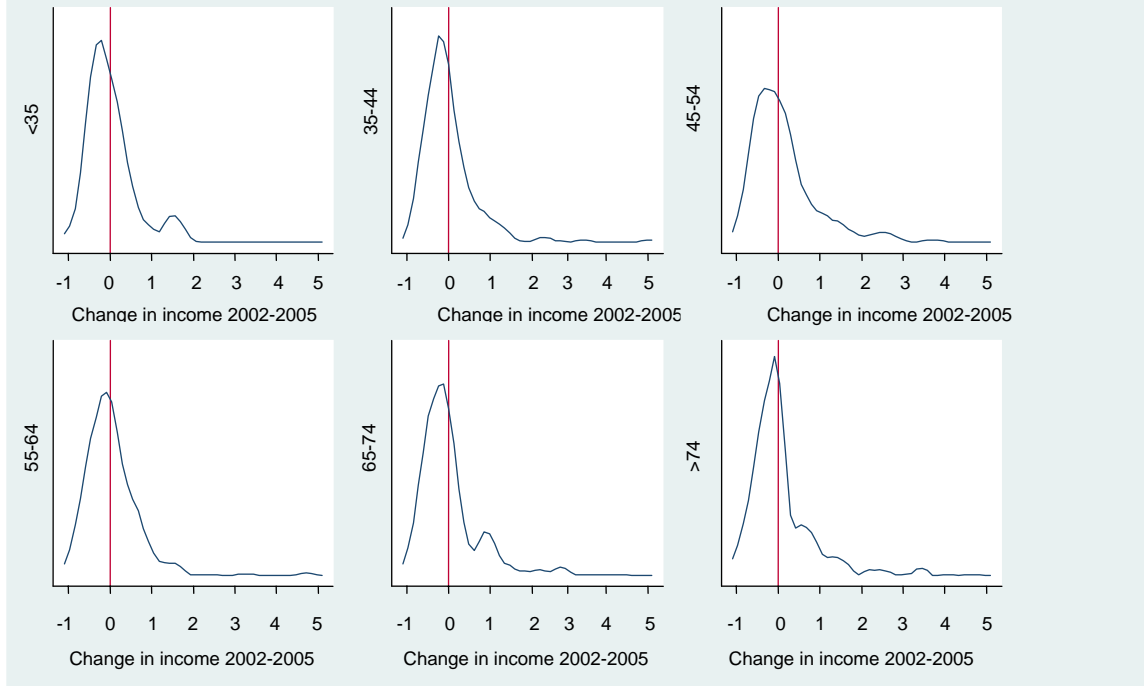


Figure 3: Distribution of changes in net wealth 2002-2005

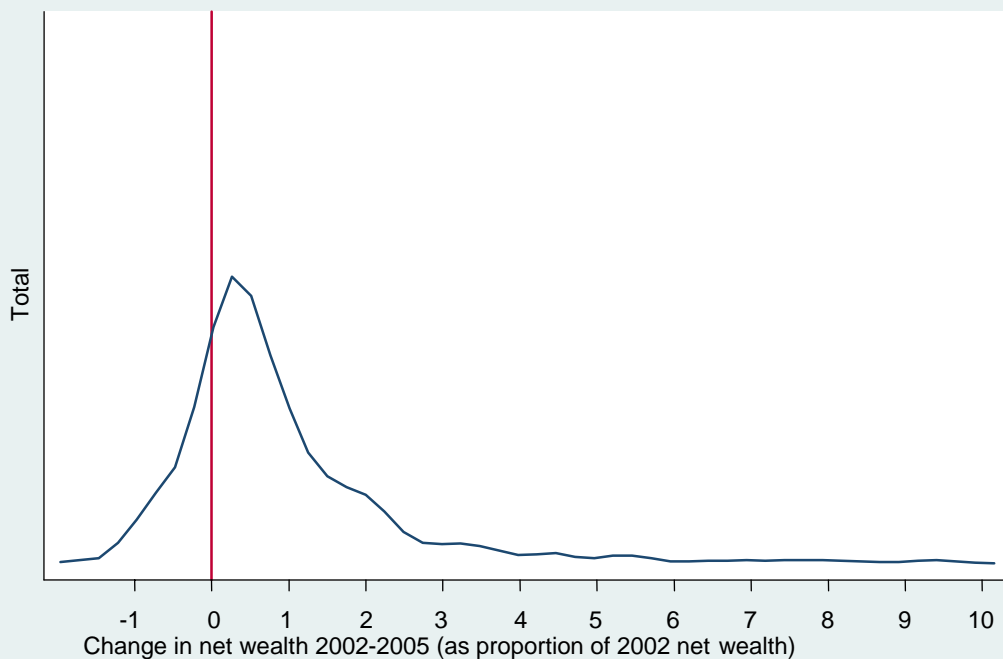


Figure 4: Distribution of changes in net wealth 2002-2005. By age group

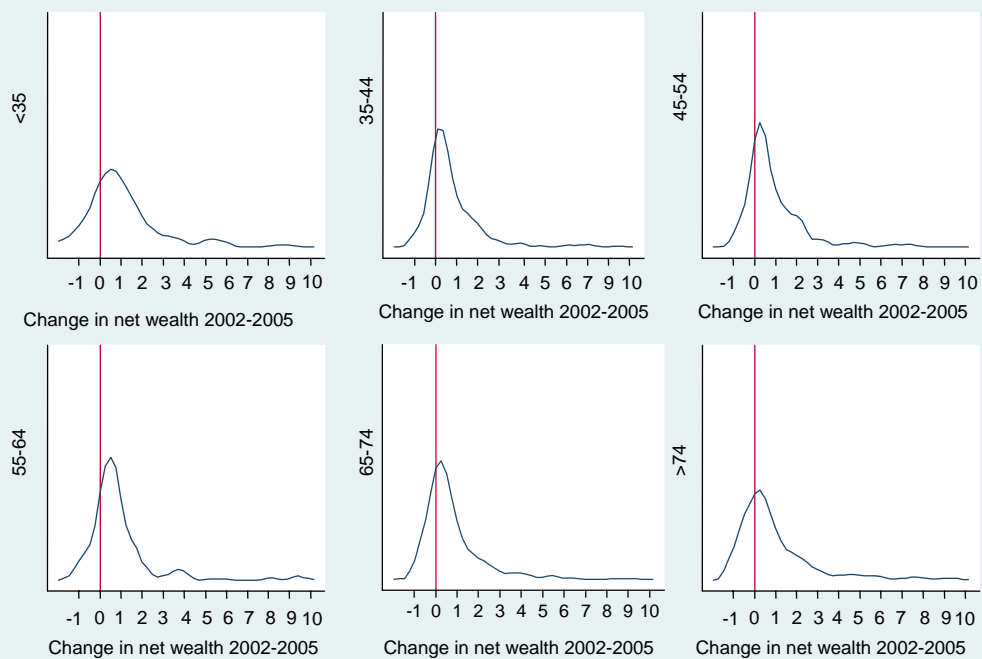


Figure 5: Distribution of changes in consumption of non-durable goods. 2002-2005

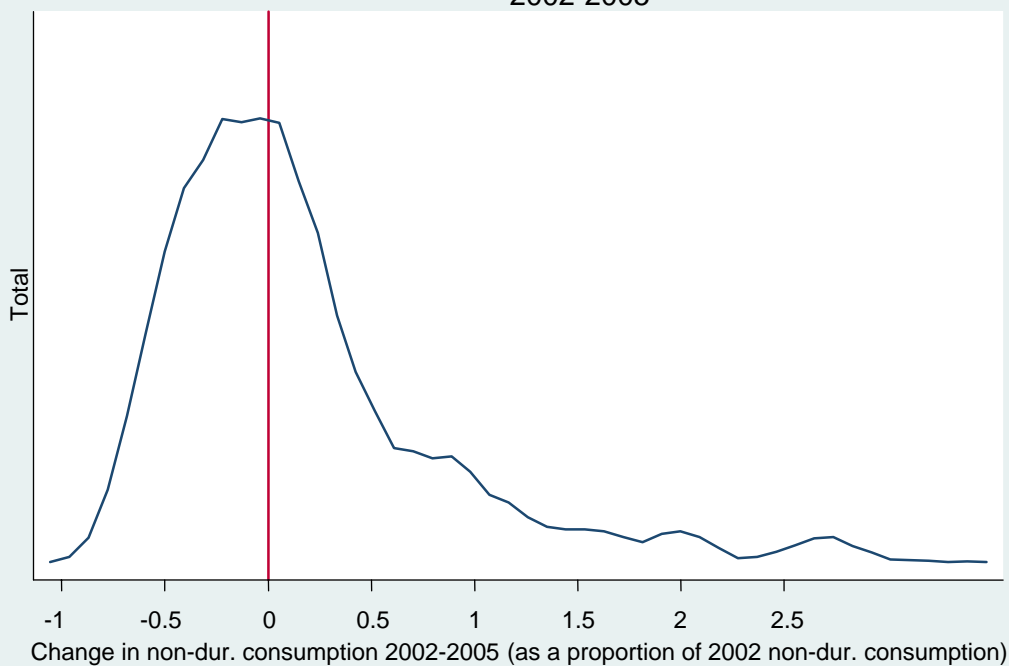
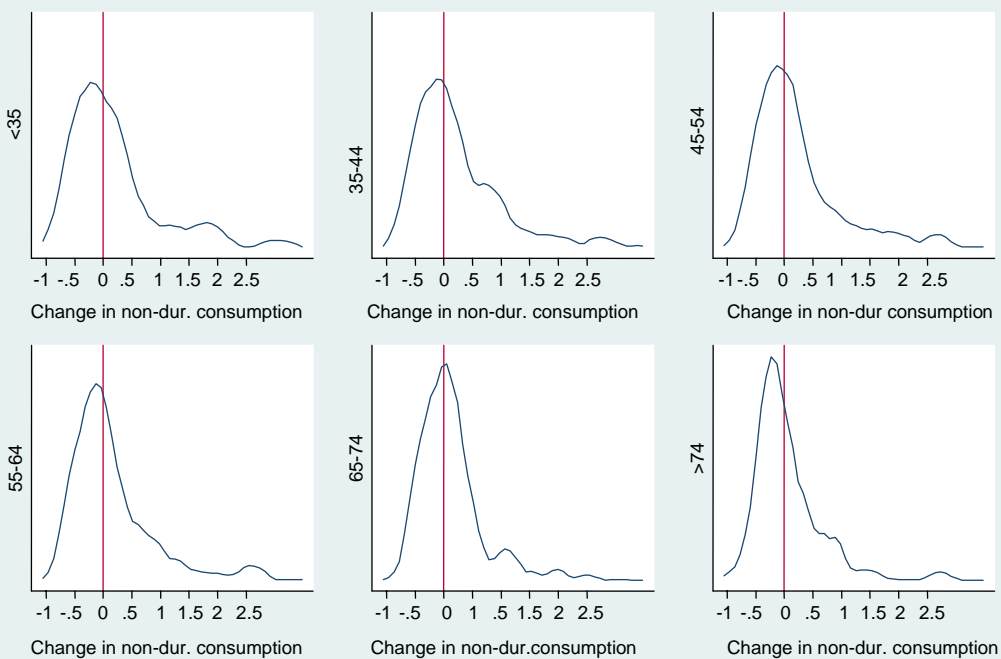


Figure 6: Distribution of changes in non-durable goods consumption. 2002-2005. By age group



BANCO DE ESPAÑA PUBLICATIONS

OCCASIONAL PAPERS

- 0501 JOSÉ RAMÓN MARTÍNEZ-RESANO: Size and heterogeneity matter. A microstructure-based analysis of regulation of secondary markets for government bonds.
- 0502 ALICIA GARCÍA-HERRERO, SERGIO GAVILÁ AND DANIEL SANTABÁRBARA: China's banking reform: an assessment of its evolution and possible impact.
- 0503 ANA BUISÁN, DAVID LEARMONTH AND MARÍA SEBASTIÁ BARRIEL: An industry approach to understanding export performance: stylised facts and empirical estimation.
- 0504 ANA BUISÁN AND FERNANDO RESTOY: Cross-country macroeconomic heterogeneity in EMU.
- 0505 JOSÉ LUIS MALO DE MOLINA: Una larga fase de expansión de la economía española.
- 0506 VÍCTOR GARCÍA-VAQUERO AND JORGE MARTÍNEZ: Fiscalidad de la vivienda en España.
- 0507 JAIME CARUANA: Monetary policy, financial stability and asset prices.
- 0601 JUAN F. JIMENO, JUAN A. ROJAS AND SERGIO PUENTE: Modelling the impact of aging on Social Security expenditures.
- 0602 PABLO MARTÍN-ACEÑA: La Banque de France, la BRI et la création du Service des Études de la Banque d'Espagne au début des années 1930. (There is a Spanish version of this edition with the same number.)
- 0603 CRISTINA BARCELÓ: Imputation of the 2002 wave of the Spanish Survey of Household Finances (EFF).
- 0604 RAFAEL GÓMEZ AND PABLO HERNÁNDEZ DE COS: The importance of being mature: The effect of demographic maturation on global per-capita income.
- 0605 JUAN RUIZ AND JOSEP VILARRUBIA: International recycling of petrodollars. (The original Spanish version has the same number.)
- 0606 ALICIA GARCÍA-HERRERO AND SERGIO GAVILÁ: Posible impacto de Basilea II en los países emergentes.
- 0607 ESTHER GORDO, JAVIER JAREÑO AND ALBERTO URTASUN: Radiografía del sector de servicios en España.
- 0608 JUAN AYUSO, ROBERTO BLANCO AND FERNANDO RESTOY: House prices and real interest rates in Spain.
- 0701 JOSÉ LUIS MALO DE MOLINA: Los principales rasgos y experiencias de la integración de la economía española en la UEM.
- 0702 ISABEL ARGIMÓN, FRANCISCO DE CASTRO AND ÁNGEL LUIS GÓMEZ: Una simulación de los efectos de la reforma del IRPF sobre la carga impositiva.
- 0703 YENER ALTUNBAŞ, ALPER KARA AND ADRIAN VAN RIXTEL: Corporate governance and corporate ownership: The investment behaviour of Japanese institutional investors.
- 0704 ARTURO MACÍAS AND ÁLVARO NASH: Efectos de valoración en la posición de inversión internacional de España.
- 0705 JUAN ÁNGEL GARCÍA AND ADRIAN VAN RIXTEL: Inflation-linked bonds from a central bank perspective.
- 0706 JAVIER JAREÑO: Las encuestas de opinión en el análisis coyuntural de la economía española.
- 0801 MARÍA J. NIETO AND GARRY J. SCHINASI: EU framework for safeguarding financial stability: Towards an analytical benchmark for assessing its effectiveness.
- 0802 SILVIA IRANZO: Delving into country risk. (There is a Spanish version of this edition with the same number.)
- 0803 OLYMPIA BOVER: The Spanish survey of household finances (EFF): Description and methods of the 2005 wave.
- 0804 JAVIER DÍAZ-CASSOU, AITOR ERCE-DOMÍNGUEZ AND JUAN J. VÁZQUEZ-ZAMORA: Recent episodes of sovereign debt restructurings. A case-study approach.
- 0805 JAVIER DÍAZ-CASSOU, AITOR ERCE-DOMÍNGUEZ AND JUAN J. VÁZQUEZ-ZAMORA: The role of the IMF in recent sovereign debt restructurings: Implications for the policy of lending into arrears.
- 0806 MIGUEL DE LAS CASAS AND XAVIER SERRA: Simplification of IMF lending. Why not just one flexible credit facility?
- 0807 MIGUEL GARCÍA-POSADA AND JOSEP M.^a VILARRUBIA: Mapa de exposición internacional de la economía española.
- 0808 SARAI CRIADO AND ADRIAN VAN RIXTEL: Structured finance and the financial turmoil of 2007-2008: An introductory overview. (There is a Spanish version of this edition with the same number.)
- 0809 FRANCISCO DE CASTRO Y JOSÉ M. GONZÁLEZ-MÍNGUEZ: La composición de las finanzas públicas y el crecimiento a largo plazo: Un enfoque macroeconómico.

0810 OLYMPIA BOVER: The dynamics of household income and wealth: results from the panel of the Spanish survey of household finances (EFF) 2002-2005. (The original Spanish version has the same number.)

BANCO DE ESPAÑA
Eurosistema

Unidad de Publicaciones
Alcalá, 522; 28027 Madrid
Telephone +34 91 338 6363. Fax +34 91 338 6488
e-mail: publicaciones@bde.es
www.bde.es