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Household Wealth  
in the National Accounts  
of Europe, the United States  
and Japan

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**HOUSEHOLD WEALTH IN THE NATIONAL ACCOUNTS OF EUROPE, THE UNITED STATES  
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**André Babeau (O.E.E), Teresa Sbano (Pioneer Invest)**

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**Abstract:** This working paper has been presented and discussed at the October 2002 OECD National Accounts Experts Meeting. The objective of the paper is two fold: (1) present comparable results for household financial and non financial assets and liabilities for Europe, the USA and Japan, (2) analyse the change in the composition of household gross and net wealth of these countries and zones between 1995 and 2000. Data is based on official financial accounts sources. However the paper proposes (and estimate the corresponding data) an original classification, better adapted to analysis: pension funds assets are broken down between defined-benefit and defined contribution, life insurance between unit-linked and guaranteed-rate, mutual-funds between equity, bond and mixed. The paper discusses the reliability of the data, including non listed shares and non financial assets. The paper then discusses global and detailed compared trends of household wealth between countries.

**Résumé :** Ce document de travail a été présenté et discuté durant la reunion d'octobre 2002 des experts comptables nationaux de l'OCDE. L'objectif du papier est double : (1) construire et présenter des résultats comparables pour les actifs et passifs des ménages financiers et non financiers pour l'Europe, les Etats-Unis et le Japon, (2) analyser les modifications de la composition de la richesse brute et nette des ménages de ces pays et zones entre 1995 et 2000. Les données sont issues des comptes financiers officiels. Cependant le papier propose (et donne les résultats) une nomenclature originale, mieux adaptée à l'analyse: les actifs dans les fonds de pension sont distingués suivant qu'ils sont à prestations définies ou à cotisation définies, l'assurance-vie est décomposée en « unit-linked » ou « à taux garanti », les OPCVM (ou fonds d'investissement) sont décomposées en actions, obligations ou mixtes. Le document analyse la fiabilité des données, en particulier concernant les actions non cotées et les actifs non financiers. Enfin, le document analyse les mouvements comparés globaux et détaillés de la richesse des ménages entre pays.

**TABLE OF CONTENTS**

Part 1: Household Financial Wealth..... 7

1. The amount of financial wealth: significant discrepancies persist among the three geographic zones ..... 7

2. The composition of financial wealth: parallel movements, but still some important differences ..... 11

Part 2: Household financial liabilities and their composition ..... 20

1. The amount of financial liabilities ..... 20

1. The composition of financial liabilities ..... 23

Part 3: Household residential property ..... 26

1. Household residential property in four European countries ..... 26

2. Residential property in the three geographic zones ..... 28

Conclusions: ..... 31

Household Financial and Real Assets and Liabilities: Methodological notes..... 33

1. Issues in the treatment of the financial assets ..... 33

2. Limits in the analysis of household liabilities..... 38

3. Issues in the analysis of real estate ..... 38

## HOUSEHOLD WEALTH IN THE NATIONAL ACCOUNTS OF EUROPE, THE UNITED STATES AND JAPAN

*By André Babeau (European Savings Institute) and Teresa Sbano (Pioneer Investments)<sup>1</sup>*

International comparisons of economic data at the household level have tended to focus on flows of funds (GDP per capita, disposable income, savings rate, etc.) and much less on the items that constitute wealth (financial and non financial assets and liabilities). Indeed, it is only recently that the concept of wealth has made its way back into economic theory. A partial explanation for this may lie in the fact that national accounts have provided much less data on stock of wealth than on flows.

While steady progress has been made in harmonising flows for international comparison purposes, the same cannot be said for comparisons relating to the asset and liability components of wealth. Difficulties in making such comparisons may arise from the concepts themselves or from the ways they are measured, or from the fact that the information necessary for such a measure is not available.

At the present time, comparisons of this kind are still difficult despite the existence of highly detailed manuals such as that for the new European System Accounts, published in 1996.

Recognising, then, that officially published data are sometimes difficult to interpret, we have made an effort in this study to look beyond published information in order to examine wealth trends more closely. Some of the results presented in this paper are more in the nature of research estimates than definitive statistics ready for the entry into a database. Caution is thus required in making comparisons between European countries, although some degree of harmonisation has already been achieved in the way the accounts are constructed. This point applies even more strongly when it comes to broader comparisons with countries such as the United States and Japan, where the methods employed sometimes differ from those used in Europe<sup>2</sup>.

As will be clear to the reader, many of the results presented below are entirely original.

In examining the treatment of household wealth in the national accounts, we have focused our attention exclusively on "stocks": we were interested primarily in examining the behaviour of the amount and composition of the stocks. Flows would have been of interest only if the wealth accounts of individual countries had been complete. In other words, we would have had to have data not only on the flow of new

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<sup>1</sup> This report was prepared by a working group comprising representatives of the OECD, Pioneer Investments and the European Savings Institute.

<sup>2</sup> Japanese accounts (in particular the "flow of funds accounts") are fairly close to the US accounts, since they were constructed in the years following the Second World War.

investments in various assets, but also on revaluations and "other changes in volume" relating to the various assets<sup>3</sup>. Yet data of these two kinds are published for only a few European countries<sup>4</sup>.

Our examination of "stocks" focused on three broad areas:

- Financial wealth, derived from the financial accounts published by various countries. For European countries, this sector concerns the broad household sector, i.e. the two sectors S14 and S15 (households and non-profit institutions serving households);
- Financial liabilities (as opposed to tax or social liabilities) of these households: these liabilities also appear in the financial accounts, with a rather arbitrary distinction between liabilities of more than one year and those of up to one year;
- Residential properties belonging to households, covering all household-owned dwellings of any kind (owner-occupied, secondary residences, dwellings leased out, etc.).

We decided to include this last component of wealth because it represents by far the most important component of non-financial household wealth. Unfortunately, as we shall see, the non-financial wealth accounts are still much less developed than the financial wealth accounts.

The following report presents the results obtained as they relate to each of the three fields mentioned above. For the sake of simplicity, we have relegated our methodological notes for each of these sections to annexes: those annexes discuss the methodological problems encountered and our attempted solutions. The following box presents a brief summary of those problems.

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### **Box 1**

#### *Principal methodological difficulties encountered*

- A generalised lack of full accounts, not only for financial but also for non-financial wealth: "revaluations" are not distinguished from "other changes in volume", making it impossible to move with any rigour from households' "beginning of period stock" of wealth to their "end of period stock".<sup>5</sup>
- For the United States, the treatment of sole proprietorships and partnerships under the heading "non-corporate equity" introduces a great discrepancy vis-à-vis other countries, which we have been able to remedy only in part.
- Accounting for "unlisted shares" (F512) and "other equity" (F513) appears to pose problems in many countries. The difficulties are usually of three kinds: allocating to households the portfolio "volume" that belongs to them, "valuation" of this portfolio at a given point in time, and finally the method for calculating revaluations from one year to the next.
- Under financial wealth, again, the breakdown of the various kinds of investment funds held by households can be tricky: the overall structure of these funds is generally well known (provided a suitable classification can be agreed), but their "sectoral" allocation is still a problem.

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<sup>3</sup> These "other changes in volume" cover changes in the nature of certain assets or changes in the sectoral classification of certain basic units.

<sup>4</sup> To our knowledge, France was the only member of the European Union to produce information of this kind for the period 1995-2000 (published in 2001).

<sup>5</sup> For a discussion of this point as it relates to European countries, see « Household Financial Wealth: Trends, Structures and Valuation Methods », by Betina Sand Christensen and Tue Mollerup Mathiasen, 27<sup>th</sup> General Conference of IARIW, Stockholm, 18-24 August 2002, mimeograph, 26 pages (especially pages 5 to 8).

- Life insurance will not represent the same kind of savings, depending upon whether it involves Unit linked vehicles or guaranteed-rate investment instruments: the distinction that we have made is based, in the case of European countries, on recent information that will have to be confirmed.
  - When it comes to pension funds, the distinction between defined-benefit and defined-contribution funds is also based on the desire to distinguish the various kinds of risk for the saver: this information is usually very difficult to find in the national accounts.
  - With respect to household liabilities, we have focused here on loans from financial institutions (banks, insurance companies, specialised credit institutions, etc.). On this point, the distinction between loans of up to one year and loans of more than one year would seem to be inadequate: the distinction between housing mortgages, consumer credit and equipment loans (unincorporated businesses) is now recognised as important but is not universally observed.
  - Finally, with respect to residential property, which we have chosen to highlight within non-financial wealth, the sources (property tax records, household surveys for which statements must be corrected) are generally much less reliable than they are for financial wealth. Moreover, the "revaluation" of this item from one year to the next is far from simple: it requires a sufficiently representative price index. On the other hand, in the national accounts, dwellings are treated separately from the land on which they are built and this poses a problem; some publications do not distinguish between built lots and other lands.
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## Part 1: Household Financial Wealth

Here, we focused on tracking the composition of financial wealth in the different countries studied. We were also interested, however, in the amounts themselves.

### *1. The amount of financial wealth: significant discrepancies persist among the three geographic zones*

We shall compare here the amount of financial assets held per capita or per household: such comparisons are of course interesting, but they require us to select a conversion rate when the countries compared do not belong to the same monetary zone. The choice of exchange rate (current rate or Purchasing Power Parity rate) is always open to debate (see Box No. 2). Relating financial wealth to disposable income has the advantage of disposing with the need for exchange rates.

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#### **Box 2**

##### *Current exchange rate and purchasing power parity (PPP) exchange rate*

In order to compare the purchasing power of households or the relative importance of their liabilities, we must refer to an exchange rate that reflects differences in price levels in each of the countries studied: we selected the exchange rate calculated by the OECD using the "purchasing power parity" method, for comparisons beyond the euro zone. This choice, however, is not neutral: generally speaking, since the absolute price level is higher in highly-developed countries where wealth is greater, the use of the PPP exchange rate tends to reduce -- sometimes significantly -- the differences that may appear between countries, for example, in terms of wealth per capita or per household, compared to what would be produced by using current exchange rates.



The following two examples illustrate this point for the year 2000, in the case of wealth per capita:

*Per capita financial wealth in the United Kingdom and Spain in 2000 (in euros)*

	PPP	Current exchange rate
<b>UK</b>	66,434	77,189
<b>Spain*</b>	28,989	28,989
<b>Ratio UK/Spain</b>	2,29	2,66

\* Spain ranks last in terms of financial wealth in our sample of countries.

If the current exchange rate is used instead of the PPP, the UK/Spain ratio rises appreciably, from 2.3 to 22.7.

*Financial wealth per capita in 2000 in the three areas (in euros)*

	PPP	Ratio to Europe	CER	Ratio to Europe
<b>USA</b>	<b>103,238</b>	<b>2,09</b>	<b>124,104</b>	<b>2,41</b>
<b>Japan</b>	<b>65,534</b>	<b>1,33</b>	<b>107,621</b>	<b>2,09</b>
<b>Europe</b>	<b>49,303</b>	<b>1,00</b>	<b>51,346</b>	<b>1,00</b>

[CER = current exchange rate]

The US/Europe ratio moves from 2.1 to 2.4. The Japan/Europe ratio moves from 1.3 to 2.1, a very impressive shift, but one that is explained largely by the decline of the euro against the yen: in 1995, one euro ("ecu") was worth 136 yen, while in 2000 it was worth only 107, a decrease of 21 percent. The volatility of exchange rates explains why it is generally preferable to base calculations on purchasing power parity.

### *1.1 Comparisons among European countries: some significant discrepancies*

The six countries selected as representative of Europe are France, Germany, Italy, the Netherlands, Spain and the United Kingdom. These countries may be considered to be representative of the European Union as a whole, since at the end of 2000 they accounted for more than 85 percent of resident household financial holdings. We then compared Europe as composed by this six countries to US and Japan.

In terms of individual sectors, we referred to sectors S14+ S15 in the European definition. This poses no problems for Japan. As we shall see in the methodological annex, however, it raises serious difficulties with respect to the United States, where the item "non-farm non-corporate business" includes not only sole proprietorships and partnerships but a great many non-traded companies.

As shown in table 1, the per-capita wealth range is quite wide: the ratio between the Netherlands and Spain is 2.6:1. The high per capita wealth observed in the Netherlands and UK may be due to the fact that in these countries pension fund claims are a very significant portion of household assets. For Italy, Germany and France, the amounts of financial wealth are fairly close to each other.

**Table 1: Per capita financial wealth (in euros, using the PPP method)**

	1995	2000	CAGR
<b>Netherlands</b>	47,915	76,841	9.9%
<b>UK</b>	47,364	66,434	7.0%
<b>France</b>	30,649	47,372	9.1%
<b>Italy</b>	29,794	47,062	9.6%
<b>Germany</b>	33,072	44,331	6.0%
<b>Spain</b>	16,017	28,989	12.6%

Sources: national account and UN figures

As might be expected, the range is somewhat narrower when it comes to the relationship of wealth to disposable income: the ratio between the Netherlands and Germany was 2.2 at the end of 2000.

With respect to rates of growth for wealth per capita and its relationship to disposable income between 1995 and 2000, these appear to have been more modest in Germany and United Kingdom than any other countries. In Germany, shares still represent a relatively low portion of household investments, and households therefore derived little advantage from the stock market boom that ended in early 2000; the weak growth noted in the United Kingdom probably reflects the fact that, although shares are significant investment instruments, the ratio of financial flows to disposable income is low.

**Table 2: Financial wealth as a percentage of gross disposable income**

	1995	2000	CAGR
<b>Netherlands</b>	442	583	5.7%
<b>UK</b>	389	456	3.2%
<b>Italy</b>	254	338	5.9%
<b>France</b>	229	308	6.1%
<b>Spain</b>	206	286	6.8%
<b>Germany</b>	222	262	3.4%

Source: National Accounts

### 1.2 Comparing Europe, the United States and Japan: a degree of convergence among the three geographic zones

By totalling financial wealth in the different European countries considered, by aggregating the financial wealth of the six European countries considered we got arrived at a measure for financial wealth in Europe that could be compared to that of United States and Japan.

**Table 3: Financial wealth as a percentage of gross disposable income**

	1995	2000	CAGR
<b>Japan</b>	403	439	1.7%
<b>US</b>	334	405	3.9%
<b>Europe (6)</b>	268	338	4.7%

Source: National Accounts

Figures differ from those published in Table 27 of the OECD Economic outlook for several technical reasons<sup>6</sup>.

Table 3 shows financial wealth as a percentage of gross disposable income<sup>7</sup>.

*Table 4: Per household financial wealth (in euros at PPP)*

	1995	2000	CAGR
<b>US</b>	190,352	270,986	7.3%
<b>Japan</b>	175,121	180,967	0.7%
<b>Europe (6)</b>	83,904	119,985	7.4%

Source: National Accounts

*Table 5: Per capita financial wealth (in euros at PPP)*

	1995	2000	CAGR
<b>US</b>	72,006	103,238	7.5%
<b>Japan</b>	56,858	65,534	2.9%
<b>Europe (6)</b>	33,294	49,303	8.2%

Source: National Accounts

Taking absolute values in euros, and using PPP-based conversions, we find that Europe has been catching up with the United States in terms of wealth per household and wealth per capita: the wealth-per-capita ratio was 2.17 in favour of United States in 1995, while it was only 2.09 in 2000, but Europe is still much further behind on this score than it is when wealth is measured against disposable income. As to Japan, that country's weak economic growth in recent years is reflected in the growth of financial wealth: on a per capita basis, financial wealth in Japan has drawn closer to that of Europeans. The wealth-per-capita ratio was 1.70 in favour of Japan in 1995, but only 1.33 in 2000, suggesting that parity is just down the road.

<sup>6</sup> Differences between OECD publication and our research:

- Our research considers the last Italian data published by Bank of Italy.
- French data are lower than OECD ones because we used here the new valuation of F512 delivered by the French "Commissariat général du plan" (July 2002) for unquoted shares.
- In the OECD publication, German, Japanese and US financial assets data are divided by net disposable income, while we used the gross disposable income.
- Total financial assets for the US are lower than the ones published by the OECD because we consider only 2/3 of equity in non corporate business
- **Liabilities, in our research, include only financial liabilities, the OECD consider all liabilities.**
- The OECD estimation includes all non financial assets, we included only real estate assets.

<sup>7</sup> The ratio to disposable income rose between 1995 and 1999 in all three zones. In 2000, it declined slightly in Europe and in the United States, as a result of setbacks on the stock market. In Japan, this ratio remained stable in 2000.

## 2. *The composition of financial wealth: parallel movements, but still some important differences*

### 2.1 *The "ideal" classification*

The classification that we have used for financial instruments is ambitious because it is more detailed than that generally found in published documents. Our objective here was to specify the level of risk actually borne by the individual household. Thus, in the case of mutual funds, we wanted to identify the relative importance of equity-heavy funds and those invested primarily in bonds. As well, in the case of life insurance, we wanted to distinguish between Unit linked vehicles, where the saver takes the financial risk, and those in guaranteed-rate investment vehicles, where it is the insurance company that bears the risk<sup>8</sup>. Finally, when it comes to pension funds, we have attempted to introduce a distinction between defined-contribution pension funds, where the contributor bears the management risk, and defined-benefit funds, where it is the company that accepts this risk. As we shall see, these new distinctions allow us to analyse the composition of household financial wealth much more thoroughly.

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#### **Box 3**

##### *The "ideal" classification*

- Currency and transferable deposits.
- Time deposits, savings and other deposits.
- Money market funds.
- Securities other than shares.
- Shares and other equity.
  - Listed shares.
  - Unlisted shares and other equity.
- Mutual funds.
  - Equity funds.
  - Bond funds.
  - Hybrid funds.
- Claims on life insurance companies.
  - Unit linked vehicles.
  - Non Unit linked vehicles.
- Claims on non-life insurance companies.
- Pension funds.
  - Defined-benefit funds.
  - Defined-contribution funds.
- Other investments.

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It will be recalled that the national accounts treatment of household financial holdings does not include "rights" under "pay-as-you-go" retirement schemes, because they do not constitute what jurists call "entitlements". We shall return to this aspect later.

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<sup>8</sup> We use the term "investment vehicles" rather than insurance contracts, because contracts often involve both Unit linked and guaranteed-rate instruments: this is indeed the general rule for so-called "multi-support" contracts

## 2.2 European countries have seen significant changes but convergence is still far down the road

Europe has seen a generalised decline in banking intermediation: this is all the more striking because bank investments were high at the beginning of the period. The trend is particularly noticeable in four of the six countries under study. This decline has less of an impact on the means of payment than on term and savings deposits.

**Table 6: The decline in banking intermediation (as % of financial wealth)**

	1995	2000	Change takes as a difference
<b>Spain</b>	51.8	36.2	-15.6
<b>Germany</b>	41.9	33.9	-8.0
<b>France</b>	39.1	30.4	-8.7
<b>Italy</b>	40.1	24.0	-16.0
<b>UK</b>	24.2	22.2	-2.0
<b>Netherlands</b>	22.5	18.1	-4.4

There has also been a sharp decline in the portion of interest-bearing securities (bonds and loans), due in many cases to efforts to redress the public finances but also, in part, to declining long-term interest rates: this trend is particularly notable in Italy, where such investments still accounted for nearly one-third of total household financial wealth at the beginning of the period.

**Table 7: The declining portion of loans and bonds (in % of financial wealth)**

	1995	2000	Change takes as a difference
<b>Italy</b>	30.7	18.7	-12.0
<b>Germany</b>	13.5	10.1	-3.4
<b>France</b>	5.5	2.7	-2.8
<b>Netherlands</b>	3.3	2.3	-1.1
<b>Spain</b>	4.2	1.9	-2.2
<b>UK</b>	1.6	1.3	-0.3

Source: National Accounts

The changes in the portion of risky assets within household financial wealth is evident looking at shares held directly. This heading is less well explained than most in the national accounts, because of uncertainties about the valuation of unlisted shares (see box below). Nevertheless, this item has shown very significant changes in Spain, in France, in Italy and even in Germany, where savers were traditionally considered more cautious on equity investments.

**Tableau 8: The growing importance of directly held shares<sup>9</sup> (as % of financial wealth)**

	1995	2000	Change takes as a difference
<b>Spain</b>	19.0	33.7	14.7
<b>Italy</b>	14.5	27.6	13.1
<b>France</b>	15.8	24.8	9.0
<b>UK</b>	15.7	17.4	1.7
<b>Netherlands</b>	15.4	16.8	1.5
<b>Germany</b>	10.9	15.6	4.7

Source: National Accounts

<sup>9</sup> In the case of France, we made a substantial reduction over the period in the amount shown for "unlisted shares" (512) in the official accounts. This correction is based on studies by the Commissariat Général du Plan (CGP, *Actionnariat des ménages*, Paris, July 2002, mimeo, 80 pages, see in particular pages 15 to 18).

**Box 4****Listed shares, unlisted shares and other equity**

These are covered by items AF511, AF512 and AF513 in the European classification of financial assets. The national accounts generally provide sound figures on households' holdings of shares listed on regulated markets: reliable data are provided by depositories or managers and, by definition, there is no problem with the valuation of these assets at any point in time. It will be noted that their revaluation from one day to another may raise certain questions about the choice of weightings in the indices used.

When it comes to unlisted shares or "other equity", the problem is quite different: it is very difficult to quantify securities held by households (and groups of non-financial companies themselves hold many unlisted shares). For valuing the shares, the application of the "stock market capitalisation/own funds" ratio to the capital of unlisted companies would seem in most cases to result in an overstatement of the value of unlisted shares: for a company, the very fact of being listed seems to boost the value of its shares, because they become more visible and demand for them is more sustained.

Further consideration is being given to this area in all countries: it will probably take several years before developed countries arrive at a way to take unlisted shares into account and to value them in a satisfactory and harmonised way. In France, for example, recent work at the Bank of France and in the Commissariat Général du Plan suggests that the amount of unlisted shares held directly by households has been considerably overstated.

Yet the shift towards riskier assets is apparent not only in the direct holding of shares. The portion of wealth held in medium and long-term investment funds is rising everywhere, although not as quickly as that of shares. The trend is particularly apparent

**Table 9: The growing importance of mutual funds (other than money market funds)  
(as % of financial wealth)**

	1995	2000	Change takes as a difference
<b>Italy</b>	3.1	15.9	12.80
<b>Germany</b>	5.9	10.5	4.59
<b>Spain</b>	6.2	9.9	3.68
<b>France</b>	8.6	9.0	0.45
<b>UK</b>	3.8	5.8	2.06
<b>Netherlands</b>	3.6	5.5	1.95

Source: National Accounts

The tendency to take greater risks is also apparent in the proportion of equity funds within investment funds as a whole: they have increased their weight by varying degrees in five of the six countries.

**Table 10: "Equity" funds as a percent of total mutual fund activity (excluding money market funds)**

	1995	2000	Change takes as a difference
<b>UK</b>	90.4	76.6	-13.73
<b>France</b>	32.7	72.2	39.55
<b>Netherlands</b>	51.7	58.4	6.67
<b>Germany</b>	23.8	57.4	33.58
<b>Spain</b>	4.5	28.4	23.94
<b>Italy</b>	34.0	36.4	2.40

Source: FEFSI

Household claims on insurance companies grew over the period in four countries: in the United Kingdom and the Netherlands, where they were already very high at the beginning of the period, they remained roughly stable.

*Table 11 :Insurance claims as a percentage of household financial wealth*

	1995	2000	Change takes as a difference
<b>UK</b>	27.7	27.5	-0.17
<b>France</b>	17.9	23.3	5.36
<b>Netherlands</b>	15.3	15.4	0.15
<b>Germany</b>	11.8	13.6	1.80
<b>Spain</b>	4.5	6.2	1.73
<b>Italy</b>	3.3	6.2	2.85

Source: National Accounts

In the eyes of savers, life insurance policies are often associated with low risk. But this characteristic changed over the period: the growth of Unit linked policies was spectacular in countries like Italy, France and Spain. They had already occupied an important position since the late 1980s in the United Kingdom and the Netherlands. Only in Germany was there no evidence of this tendency to shift risk to policyholders.

*Table 12: Unit-linked instruments as a percentage of household claims on life insurance companies*

	1995	2000	Change takes as a difference
<b>UK</b>	42.0	42.0	0.00
<b>Netherlands</b>	25.7	37.2	11.53
<b>Italy</b>	5.0	31.1	26.15
<b>Spain</b>	0.0	18.8	18.81
<b>France</b>	6.0	21.2	15.22
<b>Germany</b>	1.3	2.2	0.84

Source: L'assurance-vie multisupport dans le monde, under the supervision of André Babeau, Cardif/Natio-Vie, Paris, April 2002, 138 p.

Pension funds played an important role in the Netherlands (nearly 40 percent of wealth) in 2000 and to a slightly lesser extent in the United Kingdom (just under a quarter of wealth). Defined-benefit funds are the rule in the Netherlands, while their importance is relatively modest in United Kingdom, although this point is subject to confirmation. Elsewhere, pension funds made slow progress in the period under analysis, but the new funds that have been introduced (both II and III pillar) are generally of the defined-contribution kind, where the employee carries the risk. In all, it can hardly be said that the risk borne by savers in this area has grown significantly in Europe<sup>10</sup>.

<sup>10</sup> In the case of Italy, reserves constituted for the severance allowance are not shown as claims on pension funds. They are instead classified under the heading "other investments", and amounted to 2.3 percent of household financial wealth at the end of 2000.

*Table 13 : Pension funds as a percent of household financial wealth*

	1995	2000	Change takes as a difference
<b>Netherlands</b>	35.5	37.7	2.19
<b>UK</b>	22.3	22.1	-0.14
<b>Germany</b>	5.6	5.2	-0.43
<b>Spain</b>	4.5	5.3	0.77
<b>France</b>	1.8	1.5	-0.28
<b>Italy</b>	0.8	1.2	0.41

Source: National Accounts

At the end of this five-year period, the composition of household wealth varied significantly across Europe: in three countries (Spain, Germany and France) more than 30 percent of household financial wealth was still held in banks and similar institutions; in two other countries, the United Kingdom and the Netherlands, at least half consisted of claims on life insurance companies and pension funds; as to Italy, household wealth in 2000 was much more diversified than in 1995.

The relative weight of "unlisted shares" and "other equity" varies by a factor of more than 4 between the Netherlands (only 5.3 percent) and Spain (nearly 23 percent): it is possible, as we have seen, that these discrepancies result in part from differences of coverage and valuation methods.

*Table 14: Composition of financial assets in six European countries at the end of 2000 (in %)*

	Italy	France	Germany	Netherlands	Spain	Uk
<b>Currency and deposits</b>	24.0%	30.4%	33.9%	18.1%	36.2%	22.2%
<b>Money market funds</b>	0.8%	1.4%	0.8%	0.4%	2.5%	0.0%
<b>Securities other than shares</b>	18.7%	2.7%	10.1%	2.3%	1.9%	1.3%
<b>Listed shares</b>	8.9%	5.0%	5.9%	11.5%	11.0%	8.9%
<b>Non listed shares</b>	18.7%	19.8%	9.7%	5.3%	22.7%	8.5%
<b>Mutual funds</b>	15.9%	9.0%	10.5%	5.5%	9.9%	5.8%
<b>Life insurance</b>	6.2%	23.3%	13.6%	15.4%	6.2%	27.5%
<b>Pension funds</b>	1.2%	1.5%	5.2%	37.7%	5.3%	22.1%
<b>Others</b>	5.5%	6.9%	10.2%	3.8%	4.3%	3.7%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: National Accounts

### 2.3 *The composition of Japanese households' wealth differs sharply from that of Europeans and Americans*

The asset composition of Japanese households' wealth differs sharply from the that in Europe and the United States. It was in fact much more stable in Japan than elsewhere between 1995 and 2000, and it is still dominated by banking intermediation. These peculiarities are no doubt related to the economic situation in that country.

#### 2.3.1 Trends differed sharply from one geographic area to another between 1995 and 2000

We have seen that there were significant changes between 1995 and 2000 in Europe: banking intermediation declined sharply, while the weight of equities and investment funds rose. In most European countries, the privatisation initiatives of stock owned companies that were pursued in the second half of the 1990s translated into significant share purchases by households, thanks to a highly efficient distribution network. Yet in most countries, reselling was heavy and in many cases there was a net selling of equities, offset in part by significant purchases of investment fund units. This scenario was particularly evident in the United Kingdom.



*Table 15: Composition of household financial wealth in Europe (in %)*

<b>EUROPE (6)</b>	<b>1995</b>	<b>2000</b>	<b>Change en points de pourcentage</b>
<b>Currency and deposits</b>	10.9	10.1	-0.74
<b>Time deposits, saving deposits and others</b>	24.7	17.3	-7.36
<b>Money market funds</b>	1.4	0.8	-0.64
<b>Securities other than shares</b>	10.5	6.8	-3.67
<b>Listed shares</b>	5.5	7.9	2.41
<b>Unlisted shares and other equity</b>	9.0	13.4	4.43
<b>Mutual funds</b>	5.2	9.5	4.37
<b>Life insurance</b>	15.5	17.2	1.67
<b>Pension funds</b>	10.7	10.7	0.02
<b>Others</b>	6.7	6.2	-0.50
<b>Total</b>	100	100	0.00

Source: National Accounts

In the United States, the composition also changed, but less significantly: there was a relative decline in the means of payment, and also in bonds, despite the interest shown by Americans in corporate bonds, and mutual funds grew significantly. This last trend reflects the scenario described above for Europe, which has indeed been far more pronounced in the United States: the period 1995-2000 saw a steady net disposal of directly held shares and significant net purchases of mutual fund units. The bull market that prevailed on Wall Street during the period no doubt accounted for the high proportion of directly held equities in household portfolios.

*Table 16: Composition of household wealth in the United States (in %)*

<b>USA</b>	<b>1995</b>	<b>2000</b>	<b>Change takes as a difference</b>
<b>Currency and other deposits</b>	14.1	11.1	-3.02
<b>Money market funds</b>	2.2	3.1	0.93
<b>Securities other than shares</b>	9.4	6.4	-2.96
<b>Shares and other equity</b>	32.0	33.1	1.07
<b>Mutual funds</b>	9.6	12.9	3.33
<b>Life insurance</b>	7.1	7.1	0.03
<b>Pension funds</b>	23.4	23.8	0.40
<b>Others</b>	2.3	2.5	0.22
<b>Total</b>	100	100	0.00

Source: Flow of funds accounts of United States

The changes that appeared are even more significant if we look at the different categories of investment products in detail. Thus, within mutual funds there was sharp growth in the weight of equity funds over the period, while the proportion of investments in bond funds declined by half.

*Table 17: Composition of Mutual Funds held by households in the United States (as % of all Mutual Funds)*

	<b>1995</b>	<b>2000</b>	<b>Change takes as a difference</b>
<b>Equity</b>	60.7	77.4	+16.7
<b>Bond</b>	29.1	15.8	-13.3
<b>Hybrid</b>	10.2	6.8	-3.4

Source: ICI

Similarly, within pension funds, the popularity of "401(k) plans" encouraged a gradual increase in the weight of defined-contribution funds. If they did not advance more strongly it is likely because all pension funds for federal and local public employees are of the "defined benefit" kind.

**Table 18: Composition of household claims on pension funds in the United States, by type of fund (as %)**

	1995	2000	Change takes as a percentage
Defined Benefit Plans	69	67	-2.36
Defined Contribution Plans	31	33	2.36
Pension funds	100	100	

Source: Flow of funds accounts of the United States

The picture is quite different in the case of Japan. As elsewhere, there has been a sharp retreat in the weight of loans and bonds. But other trends have been quite different from those observed elsewhere: the proportion of cash holdings rose sharply, and this preference for liquidity clearly reflected lack of confidence in most other kinds of investments. As to equities, while their proportion progressed or remained stable elsewhere, it declined in Japan, reflecting the poor performance of the Nikkei index during the second half of the 1990s.

**Table 19 :Composition of household financial wealth in Japan (in %)**

JAPAN	1995	2000	Change takes as a difference
Currency and deposits	8.20	11.44	3.24
Time deposits, saving deposits and others	41.20	41.43	0.23
Money market funds	0.30	0.23	-0.08
Securities other than shares	7.88	4.49	-3.38
Listed shares	6.22	4.97	-1.25
Unlisted shares and other equity	4.83	3.29	-1.54
Mutual funds	2.12	2.37	0.24
Life insurance	16.72	17.67	0.95
Pension funds	7.54	9.71	2.17
Others	4.99	4.41	-0.58
Total	100	100	

Source: Flow of funds accounts of Japan

Within the mutual funds, bond funds actually increased their share of investment in Japan. As well, there was no growth in unit-linked life insurance which, even offered, would not appear to have enjoyed much success with savers. Finally, pension funds remained exclusively of the defined-benefit kind.

**Table 20: Proportion of different types of mutual funds (excluding money market funds) (in %)**

Japan	1995	2000
Equity Funds	38.0	37.7
Bond Funds	37.5	40.1
Hybrid Funds	24.5	22.3
Total	100.0	100.0

Source: Thoushin

2.4 *At the end of the period, the composition of household wealth in Europe and United States was sharply different from that in Japan*

In 2000, nearly 55 percent of household financial wealth in Japan was based on banking or equivalent intermediation. This portion, which was actually higher than in 1995, shows a very traditional asset mix, which still reflects certain peculiarities of the Japanese tax system. Until 1988, income received from savings deposits in the 24,000 Postal Savings Offices was tax-exempt<sup>11</sup>. The elimination of this exemption in 1988 provoked a shift of savings from the Post Office to the Tokyo Stock Exchange, which then took off into the stratosphere. The successive financial and banking crises of the mid and late 1990s encouraged Japanese savers to return to the Post Office, with the result that postal savings deposits now account for roughly 1/5 of household financial wealth. Prime Minister Koizumi, in office since 2001, is thought to be in favour, in principle, of privatising the financial services of the Post Office (“Yucho”) and those of its insurance branch (“Kampo”)<sup>12</sup>.

*Table 21: Composition of household financial wealth as at the end of 2000 Japan/Europe/United States (in%)*

	<i>Japan</i>	<i>Europe (6)</i>	<i>US</i>
<b>Currency and deposits</b>	11.4	10.1	1.1
<b>Time deposits, saving deposits and others</b>	41.4	17.3	9.9
<b>Money market funds</b>	0.2	0.8	3.1
<b>Securities other than shares</b>	4.5	6.8	6.4
<b>Shares and other equity</b>	8.3	21.3	33.1
<b>Mutual funds</b>	2.4	9.5	12.9
<b>Life insurance</b>	17.7	17.2	7.1
<b>Pension funds</b>	9.7	10.7	23.8
<b>Others</b>	4.4	6.2	2.5
<b>Total</b>	100.0	100.0	100.0

Sources: see previous tables

The composition of the financial wealth of European households is very different from that in Japan: there is much less banking intermediation, and shares are far more important. When it comes to American households, their behaviour seems diametrically opposed to that of the Japanese: their reliance on banking intermediation is very low, and they are heavily committed to directly held shares and holdings of equity-based investment funds and defined-contribution pension funds.

All the same, there is one important characteristic which unite the three areas: the percentage of household assets in pension funds and life insurance, slightly over 27 percent in Japan, 28 percent in Europe and 31 percent in the United States. It seems as if, despite demographic differences, the need to prepare for retirement has driven people in all three areas to devote similar proportions of their financial wealth to that end. However, we have seen that the "final support" from these retirement savings varies greatly from one country to another. Above all, we should supplement this observation with an estimate of "moral claims" that households may have on pay-as-you-go old age security systems.

At this point, we must recall that in the financial accounts household retirement-oriented assets take no account of claims on pay-as-you-go retirement schemes. It is true that these are not "entitlements" in the legal sense of the term, but however vague they may be these rights, which people accumulate over the

<sup>11</sup> These are the postal savings accounts known as “maruyu”. In the early 1980s, the Japanese Post Office was the largest financial institution in the world.

<sup>12</sup> *Japon, éternelle renaissance ?*, by Denise Flouzat, Paris, Presses Universitaires de France, January 2002, 465 pages.

course of their life, they have an important influence on household financial behaviour. It is interesting therefore to try to estimate the scale of these rights and compare them with the amount of household financial wealth.

In 1996, the OECD published a study that revealed, in particular, the present value of the deficits of compulsory old age security schemes operated on a pay-as-you-go basis in 20 countries of the OECD<sup>13</sup>.

This study provides the basis for an admittedly rough estimate of the present value of the benefits under pay-as-you-go compulsory pension schemes that workers and retirees in the various countries were entitled to expect at the end of 1995, based on the features of those pension schemes. This is not an easy exercise, because we must take account only of future rights of individuals who at that time will be part either of the work force or of the retired population<sup>14</sup>.

**Table 22: The present value of pay-as-you-go pension rights of workers and retirees at the end of 1995<sup>15</sup> (as a % of household financial assets)**

	<b>1 9 9 5</b>
<b>E u r o p e</b>	<b>1 3 3</b>
<b>J a p a n</b>	<b>7 3</b>
<b>U S</b>	<b>4 5</b>

Source: OECD Working Papers, volume IV, n. 84, 1996

It should be noted that the ratio as calculated here produces a double gap: the fact that Americans, for example, attach great importance to capitalisation has the obvious consequence of increasing household claims on pension funds and thereby expending the amount of their financial assets. At the same time, it reduces the "moral" debt of the Social Security system to workers: the ratio is therefore lowered twice.

Nevertheless, the gap between the United States and Europe (at 1 to 3) is particularly striking. In Europe itself, the gaps are even greater, in the order of 1:5 or 1:6, between for example the Netherlands, where the system is already largely capitalised, and Italy and Spain, where the pay-as-you-go rule still prevails. If we multiply financial wealth per capita by the coefficients of table 22, we find that the gaps shown in table 5 are greatly diminished for the year 1995<sup>16</sup>. But at this point we are straying far beyond conventional wealth accounting.

The value of the coefficients from table 22, however, offers a good measure of the effort that would have to be made by the middle of the century, as indicated in a recent report for the Brussels Commission, if all countries of the European Union were required to capitalise the three "pillars" of old age security.

<sup>13</sup> *Ageing Populations, Pensions Systems and Government Budgets: Simulations for 20 OECD Countries*, OECD Working Papers, Volume IV, n°84, Paris, 1996, 70 pages

<sup>14</sup> It should be noted that the evaluation of these "rights" is restrictive: the OECD in fact calculates the gap between the present value of contributions and the present value of rights in light of the regulations for different regimes: prudently, in the expectation of possible reforms to overcome these deficits, we have calculated household "rights" using the present value of contributions forecast at the time of the study.

<sup>15</sup> This present value is derived using a discount rate of 5% and assuming average productivity growth of 1.5% per year. It takes into account all the reforms that were underway in different countries at the end of 1994.

<sup>16</sup> Financial wealth figures per capita for the United States, Japan and Europe then become 104.4, 98.3 and 77.5 (in €000) respectively, and the gaps shown in table 5 are sharply reduced (from 2.09 between the extremes, to 1.35).

The simplifications we have made in the preceding analysis do not, in our view, distort the reality of trends: we hope, of course, that more accurate and detailed evaluations will soon become available.

As to the nature of the results, they demonstrate once again just how dependent the composition of household financial wealth is influenced by the developments in the economies concerned.

In the stagnant Japan of the mid-1990s, the composition of household wealth simply marked back or even regressed. There is no doubt that once economic growth resumes and unavoidable reforms are made, the composition of household wealth will shift fairly quickly away from banking intermediation.

In Europe and the United States the problem is different: economic growth and booming stock markets encouraged households to take greater risks in their investment strategies, at least until mid-year 2000. The year 2001, of course, was characterised by great concerns about risk. Will the recovery of growth and an eventual rebound in stock markets return us to the dominant trends of the 1990s in terms of investments in coming years? Or will we find ourselves in a new era of uncertainty among households and, more generally, among investors with regard to multiple risk-taking? In the latter case, we would not return to the trends of the 1990s and the demand for guarantees in various forms could become a permanent concern of individuals for several years, at least in Europe.

## **Part 2: Household financial liabilities and their composition**

The financial accounts generally provide a total figure for lending to households by financial institutions. Within this total figure, it is clearly important to see how different types of credit have evolved.

Taking our sample of six European countries, we find that, as with financial assets, those countries are highly representative of European union membership in terms of financial liabilities as well: in 1999 they accounted for 86.2 percent of the financial liabilities of 13 countries (excluding Ireland, Greece and Luxembourg), well over 4/5 of total liabilities in the EU 15.

### ***1. The amount of financial liabilities***

Generally speaking, household financial liabilities grew over the course of the period, but that within Europe growth varied from one country to the next, and from one geographic zone to the other. It also seems to have been due more to growth in absolute value than to change in measures such as disposable income or in the amount of gross financial assets.

#### *1.1 Indebtedness levels are still highly variable in Europe*

Measured as an amount per household, the behaviour of indebtedness varied significantly from one country to another in Europe between 1995 and 2000. Growth was very strong (between 12 and 13 percent on an annual average) in three of the six countries (Italy, Spain and the Netherlands). Of these three, Italy clearly started from the lowest level in 1995. In the remaining three countries, liabilities per household increased at a much more moderate pace, between 3.8 and 5 percent per year.

At the end of the period, the discrepancies were still considerable: household debt in the Netherlands was still 3.3 times higher than that in Italy, in absolute terms. The relative low level of indebtedness in the

United Kingdom may be surprising, until we recall that conversion into euros was based on purchasing power parity, which no doubt had the effect of reducing some discrepancies (see box 2).

*Table 23: Amount of debt per household in six European countries (in euros)*

	1995	2000	annual increase
<b>Italy</b>	9,202	16,526	12.4%
<b>France</b>	16,709	20,115	3.8%
<b>Spain</b>	11,541	22,245	14.0%
<b>Germany</b>	30,479	38,412	4.7%
<b>UK</b>	31,066	39,565	5.0%
<b>Netherlands</b>	29,516	54,151	12.9%

Source: National Accounts

When it comes to comparisons against disposable income, the ranking shows little difference, with the Netherlands still well in the lead. That country showed impressive growth in the ratio of liabilities to disposable income between 1995 and 2000, which was four times that of Italy where household liabilities are still quite moderate in comparison with disposable incomes<sup>17</sup>.

*Table 24: Household liabilities as a percentage of gross disposable income*

	1995	2000	Change takes as a difference
<b>Italy</b>	28	45	17
<b>France</b>	50	54	4
<b>Spain</b>	46	72	28
<b>Germany</b>	91	104	13
<b>UK</b>	107	116	10
<b>Netherlands</b>	114	177	63

Source: National Accounts

The ratio of liabilities to the amount of financial assets leads to some conclusions that are quite different from the preceding ones. The gap between the most heavily indebted country (Germany) and the least indebted (Italy) remains 3 to 1, but :

- the ranking of countries in 2000 shows some significant changes: while Italy remains in last place, the gap with France narrows, while at the top of the ranking the Netherlands is replaced by Germany, where the amount of financial wealth per capita remains, as we have seen, fairly modest;
- on the other hand, trends between 1995 and 2000 appear to be balanced: three countries saw a modest increase, while the other three recorded a decline.

<sup>17</sup> It is likely, moreover, that the inclusion of certain non-financial liabilities (fiscal and social liabilities, commercial credit) for Italian households tends to increase household liabilities in comparison to those of households in other countries.

*Table 25: Household liabilities as a percent of financial wealth*

	1995	2000	Change takes as a difference
<b>Italy</b>	11	13	2
<b>France</b>	22	18	-4
<b>UK</b>	27	26	-2
<b>Netherlands</b>	26	30	5
<b>Spain</b>	30	31	1
<b>Germany</b>	41	40	-2

Source: National Accounts

## 1.2 Sharp shifts in the relative positions of the three zones

### 1.2.1 Depending on the geographic zone, liabilities per household or per capita behaved differently

As noted earlier, conversions were made using the purchasing power parity method. In all zones, liabilities per capita rose somewhat more quickly than liabilities per household: as the population ages, the number of households continues to grow at a slightly higher rate than the number of individuals, because the average size of households is declining. In the United States, we find that the discrepancy between these two growth rates is especially low.

*Table 26: Change in liabilities per household (in euros)*

	1995	2000	CAGR
<b>Europe (6)</b>	22,563	30,706	6.4%
<b>Japan</b>	43,264	41,186	-1.0%
<b>US</b>	45,668	60,067	5.6%

In any case, whether we look at liabilities per capita or per household, there is a sharp contrast between Japan, where liabilities hardly changed (the amount per household actually declined) and the other two zones, where liabilities rose steadily and (rather counter-intuitively) somewhat more quickly in Europe than in the United States. The Japanese economy was marking time, and in such circumstances (exacerbated by lack of confidence) it is not surprising to find liabilities in retreat.

That said, the ranking of the three zones in terms of level of indebtedness remained constant throughout the period: on a per-household basis, liabilities of Americans in 2000 were still nearly double those of Europeans, and the gap between Americans and Japanese was widened. Of the other hand, European and Japanese behaviour converged somewhat: in 1995, indebtedness per household in Japan was nearly twice as high as that in Europe, while in 2000 it was only one-third higher.

*Table 27: Changes in liabilities per capita (in euros)*

	1995	2000	CAGR
<b>Europe (6)</b>	8,953	12,617	7.1%
<b>Japan</b>	14,047	14,915	1.2%
<b>US</b>	17,275	22,884	5.8%

### 1.2.2 Converging trends in the ratio to disposable income

In terms of the ratio of indebtedness to disposable income (gross but not "adjusted" in the sense of ESA 1995), the situations were starkly different at the end of 1995: the gap between Europe (the least indebted zone) and Japan (with the highest liabilities) was more than 26 percentage points. Yet by the end of 2000, the gap was less than 12 points. The reasons for this convergence are easy to understand. Japanese household indebtedness, which reached 101 percent of their disposable income in 1997, had fallen by 2000 almost back to the level of 1995. By contrast, indebtedness as a proportion of disposable income in the other two zones rose sharply, especially in Europe. The range has narrowed remarkably since 1995, when Europe was clearly in the caboose: by 2000, Europe and the United States were very close, but the ratio did not rise in Japan, despite very low growth in disposable income.

*Table 28: Household financial liabilities as a percent of disposable income*

	1995	2000	Change takes as a difference
<b>Europe</b>	72.1	86.5	14.40
<b>US</b>	80.2	89.8	9.59
<b>Japan</b>	99.6	99.9	0.33

### 1.2.3 As a percent of financial assets, indebtedness levels were very similar throughout the period

In all the three zones, we find a decline of between one and two percentage points in the ratio of financial liabilities to assets. In Japan, this was because liabilities grew even more slowly than financial wealth, which as we know rose only very modestly. In the other two zones, as we have seen, liabilities grew more strongly but, thanks to favourable stock market trends, financial wealth rose even faster. Nevertheless, in 2000 as in 1995, Europeans appear to have been more heavily indebted than Americans, something that is not often said.

*Table 29: Financial liabilities as a percent of financial holdings*

	1995	2000	Change takes as a difference
<b>US</b>	24.0	22.2	-1.83
<b>Japan</b>	24.7	22.8	-1.95
<b>Europe</b>	26.9	25.6	-1.30

Thus we find for both Europe and the United States the phenomenon (perhaps not so rare) where indebtedness is rising in comparison to income while declining in comparison to financial wealth. In fact, given the importance of real estate debt in overall indebtedness, it would be more appropriate to calculate the ratio of liabilities to total assets, rather than simply to financial assets (see section 3 of this report).

## 1. *The composition of financial liabilities*

Before comparing the liabilities' structures in the three geographic zones, we would like to make few observations on the European countries for which we were able to assemble the required information.



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**Box 5*****The composition of household liabilities***

From the behavioural viewpoint, the allocation of household borrowings is of considerable interest<sup>18</sup>. Different allocations are often linked, moreover, to different average maturities, which will be long for housing loans (at least when it comes to financing a purchase, since loans for maintenance and repairs are clearly of much shorter term), while they be short for loans to finance consumption (although loans for the purchase of durable goods such as automobiles often run for several years), and of intermediate length for credits to unincorporated enterprises (at least for investment credits, since cash credits and advances are obviously of much shorter duration).

Each of these types of credit poses its own statistical problems. Housing loans are no longer synonymous with mortgage financing in the strict sense, since the collateral offered may take other forms than an actual mortgage on the property. The great variety of consumer credits makes it difficult to account for them (for example, should current account overdrafts be counted?). Finally, in the case of equipment credits, the difficulty often arises from the fact that the distinction between credits to companies and those to unincorporated enterprises is not always very clear. Despite these difficulties, central banks in many countries have recently been attempting to provide regular information of this kind on the breakdown of liabilities.

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*2.1 There are still sharp differences in the composition of household liabilities in Europe*

The national accounts distinguish only between loans of more than one year and loans of up to one year. This classification is not of much help when it comes to households. It would be more useful to show the destination of loans - real estate, consumption, and professional credits (credits to unincorporated businesses) as well, since unincorporated enterprises are included under the subsectors of S14 in the ESA 1995.

The breakdown of household liabilities in this way is not possible for all European countries. The information we were able to obtain allowed us to do so only for five countries in our sample: Spain, Italy, France, Germany and the Netherlands. In four of these five countries, the share of "housing" liabilities is rising: this is particularly the case in Spain, in Italy and in the Netherlands, and is naturally associated with significant purchases of new or existing dwellings and with improvement and maintenance works.

In the five countries studied, professional credits are declining in importance: leaving aside Italy, the relative weight of equipment credits in 2000 ranged between 12 and 21 percent in the other four countries. For Italy, credit to unincorporated enterprises is probably significant, but the figure shown in table 30 certainly overstates the situation because it has apparently been impossible to exclude certain kinds of non-financial liabilities (commercial debts of unincorporated enterprises to other sectors, tax and social liabilities of households, etc.). If it had been possible to harmonise data on this point, it is very likely that the composition of Italian households' liabilities would have been closer to the average.

When it comes to consumer credit, this has been growing strongly in France, where there are many specialised societies that offer financing in fields beyond automobile credits (Cetelem, Cofinoga, Cofidis, Sofinco, Finaref), and these are now facing competition from the big banks. Such financing is relatively

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<sup>18</sup> For a further discussion of this point, see « Household Financial Wealth: Trends, Structures and Valuation Methods », op. cit., page 25.

less developed in Italy and even in the Netherlands (although there the total amount of household liabilities is much greater, as we have seen).

**Table 30 :Household liabilities in five European countries (as % of total)**

	Italy	France	Germany	Netherlands	Spain
<b>Home mortgage debt</b>					
2000	41	61	63	79	64
1995	34 (1998)	62	61	74	55
<b>Consumer credit</b>					
2000	8	20	15	6	24
1995	7 (1998)	16	17	7	31
<b>Professional loans</b>					
2000	51	19	21	16	12
1995	58 (1998)	22	22	20	14
<b>Total</b>					
2000	100	100	100	100	100
1995	100	100	100	100	100

Source: National Accounts

## 2.2 The structure of liabilities differs sharply from one zone to another

Caution is required in interpreting the liability structures obtained not only for Europe but also for the United States, where the inclusion of sole proprietorships and partnerships in the household sector remains something of a problem. If our results were confirmed, we would find that the three zones stand at different “points in time” in their progress along the path of long-term socioeconomic change. Japan still allocates a fairly large share of credit to the unincorporated enterprise subsector, but that share is diminishing fairly quickly. The proportion of housing loans in Japan is growing, while that of consumer credit is stable.

In Europe, the liability structure has evolved further: the share of professional credits is much lower, that of mortgages is rising, while consumer credit is still relatively modest but could increase in coming years, while professional credits will become less important.

Finally, the United States represents a country that has reached maturity in terms of credit development and socioeconomic trends: the amount of debt is high, and nearly 70 percent of it relates to housing loans (the market for new and existing dwellings is a major component of U.S. economic growth), just under a quarter represents consumer credit in a great variety of forms (of which credit cards are the most important), while professional credits represent only a modest share, because of the growth of corporate and partnership forms of business and widespread employee status. This interpretation of course requires the support of additional research.

**Table 31: Composition of household financial liabilities in the three geographic zones**

	Japan	Europe(5 countries)	United States
<b>Home mortgage debt</b>			
2000	55	62	69
1995	46	59(est)	69
<b>Consumer credit</b>			
2000	13	15	23
1995	13	15(est)	23
<b>Professional loans</b>			
2000	32	23	8
1995	41	26(est)	8
<b>Total</b>			
2000	100	100	100
1995	100	100	100

### Part 3: Household residential property

In this last part, we have sought to address a component of household non-financial wealth that is in fact their most important asset: the residential property that households own. In all developed countries, households own the majority of residential wealth: institutional investors (life insurance, pension funds), corporations and businesses own only a relatively small fraction of the housing stock and, in most countries, that fraction is declining<sup>19</sup>.

The residential property owned by households is devoted to a variety of uses: most houses are owner-occupied as principal residences, but they may also be leased to other households or used as a secondary residence. A variable portion of housing is also “between uses” at any time, and so is recorded statistically as “unused”. In the national accounts, residential property consists of dwellings (tangible fixed produced assets) and the land on which those dwellings are built (tangible fixed "non-produced" assets). In Europe, we were able to procure this information for four countries: Germany, France, Italy and the United Kingdom. This information was also available for the United States and, subject to certain assumptions, for Japan.

Conversion into euros was again done on the basis of purchasing power parity.

#### 1. Household residential property in four European countries

##### 1.1 Property per capita is fairly consistent, while the per-household figure is highest in Italy

Germany had the highest value of residential property per capita throughout the period (although German households are less likely to own their principal residence than are households in other countries, they own many properties that are leased out), but it is also the country where growth has been the slowest: recent years have seen prices retreat, after exploding in the real estate bubble that was sparked by reunification in the early 1990s.

In 1995, the value of residential property per capita in Germany was more than 55 percent higher than in France. Since then, however, this gap has been considerably reduced, because real estate prices have risen sharply in the United Kingdom. At the end of 2000, the German rate was less than 12 percent higher than the French one: indeed, the narrowing of the range is quite striking, as is the situation at the end of the period.

*Table 32: Per capita residential property (in euros)*

	1995	2000	CAGR
<b>Germany</b>	42,195	47,020	2.2%
<b>Italy</b>	36,992	45,837	4.4%
<b>UK</b>	26,581	42,623	9.9%
<b>France</b>	31,692	41,635	5.6%

Source: National Accounts

<sup>19</sup> This statement does not apply, however, to Switzerland, where pension funds and, to a lesser extent, insurance companies owned a fairly significant and stable portion of that country's housing stock.

In terms of property per household, Italy is in the lead, because of the high average size of households: 2.7 persons, compared to 2.4 in France, 2.3 in the United Kingdom and 2.2 in Germany, which has the oldest population of the four countries.

**Table 33: Per household residential property (in euros)**

	1995	2000	CAGR
<b>Italy</b>	104,055	122,071	3.2%
<b>Germany</b>	94,488	103,083	1.8%
<b>France</b>	79,146	100,202	4.8%
<b>UK</b>	63,594	99,282	9.3%

Source: National Accounts

1.2 *Differences are greater when measured by ratios where the denominator varies significantly from one country to another.*

The apparent homogeneity of residential ownership patterns in Europe that is suggested by data on absolute values evaporates when we look at the ratio of such property to disposable income or the amount of financial assets.

**Table 34: Residential property as a percent of disposable income**

	1995	2000	Change takes as a difference
<b>Italy</b>	315	329	13
<b>UK</b>	218	292	74
<b>Germany</b>	283	278	-5
<b>France</b>	237	271	34

Source: National Accounts

The ratio of property to disposable income shows a degree of convergence: while the highest level exceeded the lowest by 45 percent in 1995, it did so by only 21 percent in 2000. Italy remains in the lead, reflecting the fact that disposable income is a bit lower than in the other three countries. When it comes to the ratio to total financial assets the discrepancies increase, since the amount of financial assets, as we have seen, is quite different from one country to another.

**Table 35: Residential property as a percent of gross financial assets**

	1995	2000	Change takes as a difference
<b>Germany</b>	128	106	-22
<b>Italy</b>	124	97	-27
<b>France</b>	103	88	-16
<b>UK</b>	56	64	8

Source: National Accounts

In three of the four countries, the ratio is declining because of the strong increase in financial wealth: the only exception is the United Kingdom where, thanks to rising real estate prices, residential property has done even better than the strongly performing London Stock Exchange. In Germany, residential property is more important than financial holdings, but its relative weight has still declined, as can be seen below (table 37) in the calculation of its share of total wealth.

### 1.3 Residential property and "total" household wealth

With data available on household financial wealth and on residential property, which in general represents more than 4/5 of households' non-financial wealth, it is tempting to derive an estimate of "total" wealth by adding financial and residential holdings.

**Table 36: "Total" household wealth on a per-capita basis (in euros)**

	1995	2000	CAGR
<b>UK</b>	73,945	109,057	8.1%
<b>Italy</b>	66,786	92,900	6.8%
<b>Germany</b>	75,266	91,351	3.9%
<b>France</b>	62,341	89,007	7.4%

Source: National Accounts

The gap between the extremes in this ranking widened further over the period, reflecting strong growth of property values in Britain and slightly more moderate growth in France. The UK/France ratio was 1.19 in 1995 and reached 1.22 in 2000.

When it comes to the composition of total wealth, Germany was the only country in which residential property still accounted for the majority share. In three of the four countries the share of residential property declined. In the United Kingdom, by contrast, it increased, buoyed up by what amounted to something of a real estate bubble.

**Table 37: Residential property as a percent of total wealth**

	1995	2000	Change takes as a difference
<b>Germany</b>	56	51	-4.59
<b>Italy</b>	55	49	-6.05
<b>France</b>	51	47	-4.06
<b>UK</b>	36	39	3.14

Source: National Accounts

## 2. Residential property in the three geographic zones

We shall now look at residential property per household and per capita, and then compare the figures with available income or household financial assets. Finally, as we have done for the four European countries, we shall attempt to construct a "nearly" total figure for wealth, financial and non-financial.

### 2.1 Japan stands alone in terms of property holdings per capita and per household

Given what we know about land prices in Japan, it is not surprising to find this country at the head of the list: nevertheless, the range narrowed considerably during the period. In 1995, the Japan/United States ratio was 1.85, while by 2000 it was only 1.16: in the meantime, the real estate bubble in Japan continued to deflate, and there was a significant contraction in the value of wealth per capita in that country, while this measure was steadily increasing in the other two zones. Real estate prices, however, remained relatively high in Japan, because of land prices.

**Table 38: Value of residential property per household in the three zones (in euros)**

	1995	2000	CAGR
<b>Japan</b>	143,732	121,181	-3.4%
<b>Europe (4)</b>	85,715	105,315	4.2%
<b>US</b>	78,301	103,705	5.8%

Source: National Accounts

The fact that the average property holdings of Europeans exceed those of Americans may be surprising, but the European sample is limited to four countries. If this ranking were confirmed, even for the four countries considered, it might in large part be explained by the apparent habit of depreciating residential property more rapidly in the United States, and by lower land prices<sup>20</sup>.

**Table 39: Value of residential property per capita in the three zones (in euros)**

	1995	2000	CAGR
<b>Europe (4)</b>	35,067	44,515	4.9%
<b>Japan</b>	46,667	43,884	-1.2%
<b>US</b>	29,619	39,509	5.9%

Source: National Accounts

## 2.2 Trends differ depending on whether we use the ratio to disposable income or the ratio to financial assets

Using the ratio of residential property to gross disposable income, the discrepancy in any year between Japan and United States is greater than shown in the preceding tables, because household disposable income is relatively high in the United States. The gap trended downwards during the period, however: the relationship between the ratios for the two countries was 2.40 in 1995, and only 1.90 in 2000, as the American ratio continued to rise and the Japanese ratio declined. It is not that disposable income rose particularly swiftly in Japan, but rather, as we have seen, that the value of residential property was severely reduced.

**Table 40: Residential property as a percent of disposable income**

	1995	2000	Change takes as a difference
<b>Japan</b>	330.8	294.0	-37
<b>Europe (4)</b>	265.2	290.0	25
<b>US</b>	137.6	155.1	18

Source: National Accounts

When it comes to the ratio of residential property to financial wealth, this ratio declined in all three zones, but it fell more moderately in the United States where the value of residential property rose at a healthy pace. The ranking among the three zones was maintained however, with Europe showing the highest ratio, reflecting the relative weakness of its financial wealth, as discussed in the first part of this paper. But here again, the difference between the three zones narrowed, if only moderately, declining from 2.43 in 1995 to 2.29 in 2000.

<sup>20</sup> for a commentary on this point, see The Global Savings Paradox, by Bruce Steinberg and Matthew Higgins, *The Global Economy*, Merrill Lynch, March 1, 2002.

*Table 41: Residential property as a percent of financial wealth*

	1995	2000	Change takes as a difference
<b>Europe(4)</b>	100.0	87.7	-12
<b>Japan</b>	82.1	67.0	-15
<b>US</b>	41.1	38.3	-3

Source: National Accounts

### 2.3 Residential property and "total" household wealth

As we did with the four European countries, we may use the above results as a basis for estimating a "nearly" total figure for household wealth in the three zones.

*Table 42: Value of « total » household wealth per capita (in euros)*

	1995	2000	CAGR
<b>US</b>	101,625	142,747	7.0%
<b>Japan</b>	103,525	109,418	1.1%
<b>Europe (4)</b>	70,132	95,252	6.3%

Source: National Accounts

In 1995 it was again Japan that was first in rankings, with a total wealth 48 percent higher than that of Europe. By 2000, with very slow nominal growth in total Japanese wealth, the United States had taken the lead, and its total wealth was nearly 50 percent higher than that of Europe. Looking at total wealth, the gap between US and Europe is lower than considering financial wealth alone, (where the ratio is 2.02), but it is still considerable. The convergence between Japan and Europe, on the other hand, is spectacular: the ratio fell from 1.48 in 1995 to 1.15 in 2000. If these trends continue, wealth in those two regions could soon be very similar, although it must be recognised that the wealth of Europeans has been growing much more slowly since the second half of 2000.

*Table 43: Residential property as a percent of "total" household wealth*

	1995	2000	Change takes as a difference
<b>Europe(4)</b>	50.0	46.7	-3.27
<b>Japan</b>	45.1	40.1	-4.97
<b>Us</b>	29.1	27.7	-1.47

Source: National Accounts

In the three geographic zones, the share of residential property in total wealth has declined:

- in Europe, because financial wealth grew strongly during the period;
- in Japan, because residential property has lost ground against total wealth, which nevertheless managed to grow slowly;
- in the United States, from an already modest level, the importance of residential property declined only slightly, because real estate prices were reasonably strong.

Having produced an estimate of total household wealth, it is interesting to compare total household liabilities to this overall wealth figure. In Japan, the ratio has been very stable: total wealth grew slowly, but liabilities did the same (+ 1.2 percent in value per capita). In the United States, the indebtedness ratio declined slightly despite strong growth in liabilities (+ 5.8 percent per capita), reflecting sustained growth in total wealth (+ 7 percent per capita). For Europe, generally speaking, the four-country sample is not

sufficiently representative, and this is particularly true when it comes to indebtedness: with the results available, we can see nevertheless that this indebtedness has reached a level very close to that of Japan, and that it was also very stable during the period. The inclusion of countries such as the Netherlands and Denmark, where indebtedness rose sharply during the second half of the 1990s, might require an amendment to this conclusion.

**Table 44: Household liabilities as a percentage of total household wealth**

	1995	2000	Change takes as a difference
<b>Europe (4)</b>	13.7	13.4	-0.24
<b>Japan</b>	13.6	13.6	0.06
<b>US</b>	17.0	16.0	-0.97

Source: National Accounts

#### 2.4 A synthetic measure: the ratio of net total wealth to income

With the ratio of total wealth net of liabilities to disposable income before capital consumption, we arrived at a highly complex variable the behaviour of which can be influenced by many factors. In 1995, the UK/Germany ratio was 1.21, which is fairly moderate. By 2000, this ratio jumped to 1.41, since Germans' wealth had advanced only slightly against disposable income, reflecting a moderate increase in their gross wealth combined with a more significant growth in their liabilities.

**Table 45: Total net household wealth as a percent of gross disposable income**

	1995	2000	Change takes as a difference
<b>UK</b>	500.2	631.3	131
<b>Italy</b>	541.3	621.7	80
<b>France</b>	416.5	524.8	108
<b>Germany</b>	413.4	437.2	24

Source: National Accounts and national surveys

Comparing the three geographic zones, we find on the other hand that the spread contracted between 1995 and 2000, and that in fact Japan had the highest ratio, although it was stable between these two dates. By contrast, high levels of indebtedness meant that the United States had the lowest ratio, but this ratio rose sharply under the impact of sustained growth in total gross wealth.

**Table 46: Total net household wealth as a percent of gross disposable income**

	1995	2000	Change takes as a difference
<b>Us</b>	391.8	470.5	79
<b>Europe</b>	458.0	537.2	79
<b>Japan</b>	634.3	633.0	-1

Sources: National Accounts, national surveys and authors' estimates for Japan

#### Conclusions:

Given the diversity of the data analysed, it is difficult to offer a complete synthesis of the results obtained. Because the study focused on a comparison of Europe, Japan and the United States, we will concentrate here on those geographic regions.



Between 1995 and 2000, total wealth per capita in the United States and Europe (financial holdings and residential property) grew at a steady pace of between 6 and 7 percent per year. Total wealth per capita in Japan rose by only around 1 percent per year. By the end of 2000, the average wealth of the Japanese was still in second position, far behind that of Americans and only slightly ahead of the Europeans.

Residential property per capita declined in Japan, while it rose by between 5 and 6 percent in Europe and the United States. Financial wealth per capita rose by more than 7 percent in the United States and Europe, and by less than 3 percent in Japan. The stagnation of the Japanese economy was clearly reflected in the behaviour of household wealth, although household savings rates remained high.

If we look at the causes of changes in wealth (which was not the purpose of this study), we find, of course, that it is the volume and price characteristics of economic growth that explain differences in the growth of wealth among the three geographic zones. In the case of the United States, the household savings rate fell, but there were strong capital gains from real estate and financial holdings. In Europe, the household savings rate declined by much less than in the United States, but gains from holdings were less significant. In Japan, the flow of savings was offset by considerable capital losses from real estate and financial holdings.

Finally, the ratio of total household wealth net of liabilities to disposable income before capital consumption rose over the five years by nearly 80 percentage points in the United States and Europe, while it declined slightly in Japan.

This last observation confirms the slow growth of total wealth in Japan, which barely kept pace with the growth of disposable income, with liabilities growing at a comparable rate. In the United States and Europe, by contrast, liabilities grew noticeably faster than the gross disposable income of households, but not faster than their total wealth, against which the ratio of indebtedness remained stable.

The composition of household financial wealth in Japan over the period also behaved in sharp contrast to that in the other two geographic zones. Between 1995 and 2000, the composition of Japanese financial wealth changed little, and remained very traditional (with heavy reliance on banking intermediation). In Europe, the composition changed significantly with an increase in the relative share of risk assets: we were able to analyse this phenomenon in depth, thanks to the supplementary details that we introduced under several headings (life insurance, investment funds and pension funds). In the United States, while there was less change in composition, it appears that the structure of wealth was already more mature in 1995: banking intermediation was weak, life insurance and pension funds accounted for a high proportion of wealth, and direct shareholdings were important.

We recognize, of course, that the years 2001-2002 could represent a period of transition: in the case of Japan, towards renewed growth after the stagnation of the 1990s, and in Europe and the United States, towards slower growth in wealth, which might no longer be much greater, on average, than that of disposable income.

## Household Financial and Real Assets and Liabilities: Methodological notes

### 1. *Issues in the treatment of the financial assets*

Our approach has its roots in the system of national accounts and in particular the standards laid out in 1993 (SNA 1993). In recent years, major countries have been revising their financial accounts in accordance with the 93 SNA rules (ESA95 for European countries), in order to make the international comparison of financial assets an easier task.

Our aim is to analyse financial assets held by households.

Starting with definitions: a household<sup>21</sup> is a “small group of persons who share the same living accommodation who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food”. In the financial accounts the household sector consists of all resident households defined as institutional units which include “unincorporated enterprises owned by households, whether market producers or producing for own final use”. “Only those households unincorporated market enterprises that constitute quasi-corporations are treated as separate institutional units”.

*In the US net worth of sole proprietorships is put in “proprietor’s equity in non-corporate business”<sup>22</sup> and regarded as household financial assets. In the other countries, part of this amount (professional buildings, plant and machinery) is regarded as non-financial asset.*

*Therefore in the US the ratio of “shares and other equities” and total assets is overestimated and the total amount of financial assets is also likely to be larger than that really pertaining to households.*

*In order to overcome this problem, we decided to consider only 2/3 of the assets in the section “Equity in non-corporate business” which corresponds mainly to the value of the participation in non-listed companies.*

In the national financial accounts, households are generally analysed in conjunction with non-profit institutions. **Non-profit institutions serving households** “are legal or social entities created for the purpose of producing goods and services whose status does not permit them to be a source of income, profit or financial gain to the units that establish, control or finance them”.

*Of the countries under analysis, only Japan and France provide data on financial assets of household and non-profit institutions separately. So we consider here the sum of sectors 14 and 15 in Esa95.*

Despite the publication of very detailed manuals, such as the one concerning the new European accounts system, which was first published in 1996, the international comparison of household assets is still difficult. Some harmonization and interpretation of official information published is needed. Moreover, we have often tried to go beyond the published information, trying to get more detailed breakdowns (e.g. Unit linked and non-unit linked life insurance assets, DC and DB pension fund assets, mutual fund composition), to get a better idea on the portfolio composition and on the risk borne by the average household in each country.

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<sup>21</sup> System of National accounts 1993 p. 105

<sup>22</sup> Family’s share of the sales value of sole proprietorships, limited partnerships, other partnerships, and/or other types of noncorporate businesses and the current value of one-to-four family rental properties.

In Europe international comparison has become an easier task in the recent years, due to the progressive application of the ESA95 standards at national level (the process has still to be completed). More difficult is instead the data comparison between Europe, the United States and Japan, due to the lack of homogeneous accounting methods<sup>23</sup>.

Given the set of information on national account data we could get from national and international institutions, we arrived to the definition of the following financial instrument classification:

## ESA95

1. Currency and transferable deposits	AF. 21 – AF 22
2. Other deposits	AF. 29
3. Money market funds	AF 521
4. Securities other than shares	AF. 3
5. Shares and other equity	AF. 5
5.1 <i>Of which shares</i>	AF. 511
5.2 <i>Of which non listed shares and other equity</i>	AF 512 AF 513
6. Total mutual funds (excluding money market funds)	AF.52(excl. AF521)
6.1 <i>Of which equity mutual funds</i>	
6.2 <i>Of which bond mutual funds</i>	
6.3 <i>Of which balanced mutual funds</i>	
7. Life insurance	AF. 611
7.1 <i>Of which Unit Linked</i>	
7.2 <i>Of which non Unit Linked</i>	
8. Pension funds	AF. 612
8.1 <i>Of which defined Benefit Plans</i>	
8.2 <i>Of which defined Contribution Plans</i>	
9. Others	AF. 4, AF 62, AF 7
10. Total	AF.

1. In **Currency and transferable deposits** are included:

- notes and coins in circulation commonly used to make payments;
- those deposits (in national or in foreign currency) immediately convertible into currency or transferable by check, bank order, debit entry or the like, both without any kind of significant restriction or penalty.

2. **Other deposits** include all deposits (in national or in foreign currency) other than transferable deposits. Typical forms of deposits that should be included under this classification are: non-transferable saving deposits, term deposits, non transferable deposits denominated in foreign currencies.

*We didn't find significant problems for these two category groups. Just in the case of the UK we did not find the distinction between transferable and other kinds of deposits, and we had to proceed with an estimation.*

3. **Money and market funds** include those mutual funds investing in liquid assets.

<sup>23</sup> The Japanese accounts – especially the “flow of funds accounts” – are fairly close to the American accounts; in fact they were based on the American model in the years after the Second World War. All the information on Japan applies as at the end of the fiscal year (31 March every year): accordingly, the information for end 2000 on financial assets for example concerns in fact 31 March 2001.

*In the case of money market funds we used the Fefsi (Federation of XXXX) classification, which includes in the money market funds those mutual funds investing in financial instruments with maturities of one year or less. Most countries now tend to use this definition, the process of harmonization has not been completed yet. In Italy this classification was introduced in 1998. Before that date all funds investing in financial instruments with maturities of 2 years or less were considered in the money market fund category.*

*Money market funds separate detailed data held by households are available just for **France, Japan and US**. The other countries include this amount in mutual fund asset, and there is no possibility to know how much of the money market funds sold by intermediaries to the market are directly owned by households.*

*In **Japan** the amount is not explicitly evidenced in the household financial accounts table published by the Bank of Japan (money market funds are included in the “securities investment trust” category group). We got this data from TOUSHIN, the Japanese institution responsible of the collection of mutual fund industry statistics, which gives the amount of money market funds held by the household sector.*

*For the rest of the countries under analysis we estimated the money and liquid component starting from the mutual fund statistics of the overall industry, assuming that household mutual fund mix is close to that of the overall market.*

4. **Securities other than shares** include:

- bills, defined as “securities that give the holders the unconditional right to receive stated fixed sums on a specified date”;
- bonds and debentures, “securities that give the holders the unconditional right to fixed money income or contractually variable money income”;
- certificates of deposits;
- commercial paper;

and other similar instruments normally traded in the financial market.

*In the **US** bonds are evaluated on a face value basis, while in the other countries they are evaluated on a market value basis.*

5. **Shares and other equities:** financial assets that represent property rights on corporations or quasi-corporations. These financial assets generally entitle the holders to a share in the profits of the corporations and to a share in their net assets in the event of liquidation. Equity securities do not provide the right to a predetermined income or to a fixed sum on dissolution of the corporations.

**Shares:** Shares cover beneficial interest in the capital of corporations in the form of securities, which in principle are negotiable. Shares are split, when possible, between **quoted** and **non-quoted**.

*There are not special problems about the estimation of listed share. But is important to emphasise that the household listed shares portfolio seems to be obtained frequently as a residual data from the other sectors*

*The ESA instruction says that listed shares are to be valued at a representative mid-market price observed on the stock exchange or other organised markets.*

*The value of non-listed shares, which are not regularly traded on organised markets, should be estimated with reference to the values of listed shares. However, these estimates should take into account differences between the two types of shares, notably their liquidity, and they should consider the reserves accumulated over the life of the corporation and its branch of business.*

*The estimation method applied depends very much on the basic statistics available. It may take into account, for example, data on merger activities involving non listed companies. Furthermore, in cases where the reserves of non quoted corporations differ on average, and in proportion to their nominal capital, from that of quoted corporations it would be appropriate to calculate the current price of non-listed companies as a proportion of other figures including reserves, or as own funds compiled according to ESA principle:*

A= current price of non listed shares  
 B= current price of listed share  
 C= own funds (non listed shares) / own funds (listed share)

$$A = B \times C$$

*The ratio of current price to own funds may vary with the branch of business. Therefore, it is preferable to calculate the current price of non listed shares branch by branch. There may be other differences between listed and non-listed, which may have an effect on the estimation method.*

*In France the measurement of non listed shares is done summing up the paid-in capital and reserves and then multiply to this amount the ratio between the market value of listed companies and their own funds. The Bank of France is evaluating how to improve this estimation methodology. The first results will not be officially published until 2004, but some non-official results are already available; we used here the new valuation of F512 delivered by the French “ Commissariat général du plan” (July 2002).*

*Italy applies the esa95 methodology for large non-listed companies. For non-listed small-medium size firms the evaluation is done according to their book value. Listed companies are evaluated as according to their market capitalisation. In general, the series published are likely to be revised in the future, possibly significantly.*

*The series for the household sector are obtained as a residual, by subtracting the quantities attributed to all the other sectors. The listed shares held by households include shares acquired directly and those acquired via portfolio management schemes.*

*In the Bank of Italy annual report there is the distinction between domestic and foreign shares. Domestic shares are then divided between listed and non-listed. The bank of Italy Research department provided us also of the percentage of listed and non- listed in the case of foreign shares.*

*In the UK also applies the esa95 methodology, but they are still working on their estimations.*

*In Germany non listed companies are evaluated as according to their book value by applying a 30% increase, in order to take into account of reserves.*

*In Spain the valuation of non-listed shares issued by banks is done by applying the ESA 95 recommended ratio ( capitalisation/own funds ratio of quoted corporations of a similar size and activity). On the other hand, in the case of non-financial corporations the value of unquoted shares has been estimated taking the discounted value of the flows of expected profits.*

*In Netherlands non-listed shares are evaluated at own reserves and calculated as a residual for the household sector.*

6. A **mutual fund** is: Shares issued by a specific type of financial corporations, whose exclusive purpose is to invest the funds collected in financial markets and/or in real estate.

This asset includes the shares issued by financial corporation called according to country, mutual funds, unit trusts<sup>24</sup>, investment trusts and other collective investment schemes, e.g. (UCITS), whether they are open-ended<sup>25</sup>, semi-opened or closed-end funds<sup>26</sup>.

These shares may be listed or non-listed. When they are not listed, they are usually repayable on request, at a value corresponding to their share in the own funds of the financial corporation. These own funds are revalued regularly on the basis of the market prices of their various components.

<sup>24</sup> UNIT TRUSTS is similar to a closed-end fund in that the number of unit certificates is fixed.

<sup>25</sup> OPEN END FUND continually stand ready to sell new shares to the public and to redeem their outstanding shares on demand at a price equal to an appropriate share of the value of their portfolio, which is computed daily at the close of the market.

<sup>26</sup> CLOSED END FUNDS sell shares like any other corporation but usually do not redeem their shares. Transactions are exactly like purchasing and or selling a common stock of a company (in Japan )

Investment in bank personal trusts and Estates: Bank personal trust are legal entities established at banks and non-depository trust companies by individuals to invest in assets for the benefit of the owners or other persons; the sector also includes estates of deceased persons being administered by banks and trust companies<sup>27</sup>.

*In the US mutual funds, we include also investment in bank personal trust and real estates.*

*France only provides a detailed segmentation of mutual funds asset. The other countries just give the total amount held by households, netted out of the pension fund and insurance component. We tried to estimate the mix (Equity, Bond, Balanced) using Fefsi data. Fefsi data, however, only refer to domestic harmonised funds and not foreign funds. Moreover, this amount refers to the overall industry and not just households. We assumed that households mutual fund portfolio mix resembles the portfolio mix of the total industry. This estimation gives satisfactory results especially for those countries, which have the 80-90% of the total mutual funds in the hand of household. (e.g. in Italy and Spain).*

*For the US we use ICI non-proprietary mutual fund asset mix, which includes all the mutual funds industry*

7. **Life insurance** consists of provisions against outstanding risks and provisions for with-profit insurance that add to the value on maturity of with-profit endowments or similar policies.

**Unit linked:** Are life insurance instruments which link the return on the capital invested to the performance of an index or a financial portfolio (e.g. mutual fund). The financial risk is borne by subscribers.

*The amount of the unit linked has been calculated using the percentage estimated by CEA (European life insurance in figures) Eurostat (Special feature on insurance and pension funds, European Commission) for the life insurance business.*

8. **Pension funds** consist on the reserves held by funds to provide pensions for employees or self-employed.

8.1 In **defined contribution schemes**, future benefits vary according to the fund's asset and the returns of the funds invested; this kind of schemes is then sensitive to economic fluctuations and subject to the manager's financial ability. This type of schemes is attractive because the mobility of employees is possible as vested rights can be easily calculated before the term.

8.2 **Defined benefits schemes** guarantee the payment of a certain replacement of income. This second kind of schemes is supposed to decline, as it is less flexible than defined contribution schemes in terms of labour mobility.

9. **Other:** Financial assets created as counterpart of a financial or a non-financial transaction in cases where there is a discrepancy between the time when the transaction occurs and the corresponding payment.

We include also in this group:

- 1) **(F62) Prepayments of insurance premiums and reserves for outstanding claims.** Prepayments result from the fact that insurance premiums are generally paid in advance. Thus at the end of the period some of the reserves outstanding refer to the following period and should not be considered in the life insurance group. Reserves for outstanding claims are reserves that insurance enterprises hold in order to cover the amounts they expected to pay out in respect of claims that are not yet settled or claims that may be disputed.

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<sup>27</sup> Guide to the US Flow of Funds Accounts vol 2, page 1002.

- 2) **(F62) Non-life insurance reserves**
- 3) **(F4) loans:** Financial assets created when creditors lend funds to debtors, either directly or through brokers, which are either evidenced by non-negotiable documents or non evidenced by documents.
- 4) **Security credit:** Security credit consists of loans to security brokers and dealers from the commercial banking sector for purchasing and carrying securities, as well as customer credit and debit balances with brokers and dealers<sup>28</sup>.
- 5) **Severance pay reserves,** (the so called «Trattamento di fine rapporto» (TFR)). In Italy private sector workers when leaving the firm are entitled to receive a severance pay-benefit proportional to the years of service into the firm. Firms in order to finance the TFR hold reserves on behalf of workers.

## 2. *Limits in the analysis of household liabilities*

**Household liabilities** include home mortgage debt, consumer credit, bank loans not elsewhere classified, marginal loans, and loans against life insurance policies. They don't include fiscal or social debits or other forms of liabilities.

*In the national accounts household liabilities are simply divided as according to their maturity (short, medium and long). We considered more interesting to distinguish between consumer credit, mortgages and professional credit. On these segmentation have detailed data only for **France, Germany, Italy, the Netherlands, the US and Japan.***

*In the case of **Italy** we used the table TDME0070 published by the Bank of Italy. This table gives the amount of bank loans directed towards household divided as according to their final destination. Loans comprise performing loans, bad debts and repo assets.*

*We applied the same percentages coming from this table to the total household liabilities as coming from the national account table. The total amount of the two tables does not coincide since the national financial accounts are evaluated on an accrual basis, while bank loans are evaluated on a cash basis.*

***Japanese** and **US** data on liabilities are only partially comparable to those coming from the European countries, as they are divided as according to their purpose and not their duration (like in Europe).*

*In **Japan** the voice housing loans is given by the sum of housing loans by private financial institutions and housing loans by public financial institution. In the case of consumer credit we consider consumer credit by private financial institution and 1/2 of the loans by public financial institution, after having excluded housing loans and loans by public institution of sector s15. The latter are on the other hand included in the professional credit, as well as the remaining part of the loans by public institutions and loans to companies and governments.*

*As far as the **US** are concerned, in household and non-profit organisation balance sheet we have detailed information on consumer credit. To this amount we sum life insurance premiums and home mortgages. Professional credit is given, instead, by the sum of Municipal securities, Bank loans, Other loans and advantages, commercial mortgages, security credit and trade payables.*

## 3. *Issues in the analysis of real estate*

**Real estate:** Entities, over which ownership rights are enforced by institutional units, individually or collectively, and from which economic benefits may be derived by they owners by holding them, or using

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<sup>28</sup> Guide to the US Flow of Funds Accounts vol 2, page 974.

them over a period of time, that consist of tangible assets, both produced and non-produced, and most intangible assets for which no corresponding liabilities are recorded.

**Dwellings:** Buildings that are used entirely or primarily as residences, including any associated structures, such as garages, and all permanent fixtures customarily installed in residences.

**Land underlying buildings:** Land on which dwellings are constructed or into which their foundations are dug, including yards and gardens deemed an integral part of farm and non-farm dwellings and access roads to farms.

*We could get some information on real assets only for **France, Italy, Germany, Us and Japan**. The sources of the information and estimation methods are not homogeneous and data are only partially comparable.*

*In the case of **Italy**, the estimation was made on the basis of the information coming from the Bank of Italy Household survey (the average the real estate assets held by households multiplied by the number of households).*

*For the other countries we used the data published in the household non-financial balance sheet accounts.*

*In the case of **Japan** we consider the  $\frac{3}{4}$  of the land indicated by the non-financial accounts as land underlying buildings.*