The final financial investment of French households

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1. Introduction

This study wants to spot and analyse the “final financial instruments” in which French households’ financial savings are invested by making transparent their intermediated investments with mutual funds and life insurance corporations. It attempts to identify where French households’ savings is finally allocated (France or abroad), who bears the liquidity risk and the market risk. Doing so, the role of financial intermediaries such as insurance corporations and mutual funds may be specified more accurately.

Households’ allocation of savings is first determined by their choice between financial and non-financial investment. Non-financial investment is mainly devoted to housing and it presently takes the lion’s share in the wealth structure of households in France due to the rise in real estate prices over the last years. Indeed, the share of housing in total households’ wealth has risen from 53% in 1994 to 61.6% in 2005 and has always exceeded the share of their financial assets (see annex 3). Nevertheless, the reason for holding a house/flat is usually primarily influenced by socio-demographic motivations (demography, social behaviour, labour market…). We will thus focus on financial investment hereafter.

As regards the share they allocate to their financial investment, households have to choose whether to invest directly on financial markets or to use the services of financial intermediaries such as banks for deposits or non-bank institutions for mutual fund shares or life insurance contracts.

Among financial intermediaries, the weight of non-bank financial intermediaries, namely investment funds and insurance corporations, has increased at the expense of traditional banking intermediation. Indeed, although the share of intermediated households’ investments is stable around 79% over the period 1994-2005 the proportion invested in deposits with monetary financial institutions has decreased from about 41% in the mid nineties to 34% in 2005, while the share of non-bank financial intermediation has increased symmetrically.[2]

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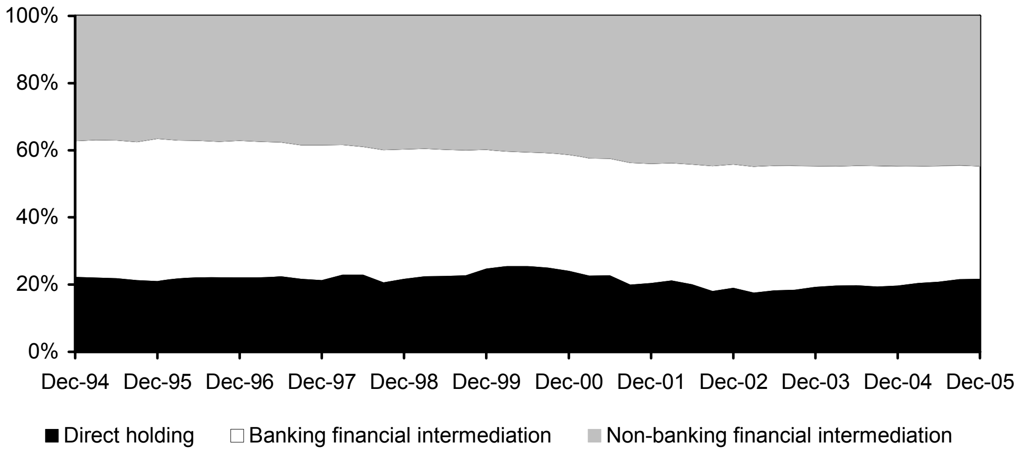
[2] It must be noted that, in France, banks have significantly contributed to this development by creating investment fund subsidiaries and insurance corporation subsidiaries, respectively registered in national financial accounts under the sectors Other financial intermediaries (S.123) and Insurance corporations and pension funds (S.125).

Chart 1

Intermediated and non-intermediated financial investment of households[1]



[1] In this chart and all the following ones the total financial assets of households include all the instruments reported in financial accounts except prepayments of insurance premiums and reserves for outstanding claims (AF62) and other accounts receivable/payable (AF7) which hold a specific role.

Source: Banque de France (Financial Accounts).

In fact, through these intermediated instruments, households finally hold bonds, shares and deposits, invested nationally or in other economies, in euros or in foreign currencies. Sometimes, two intermediaries are involved in the intermediation process as is the case when insurance corporations invest in mutual fund shares for example.

Households' financial investment, as described in financial accounts, is first analysed in section 2. The results of the transparency making process are presented in section 3. In section 4, the results are pushed a step forward identify the main risks borne by households. The methodology used to make non-bank intermediaries transparent is presented in annex 1. The detailed breakdowns used for the construction of the key indicators analysed before and after transparency are listed in annex 2.

The term "before transparency" hereafter refers to the analysis of households' financial assets based on the use of financial accounts, whereas the term "after transparency" refers to the analysis of households' financial investment in terms of "final" instruments.

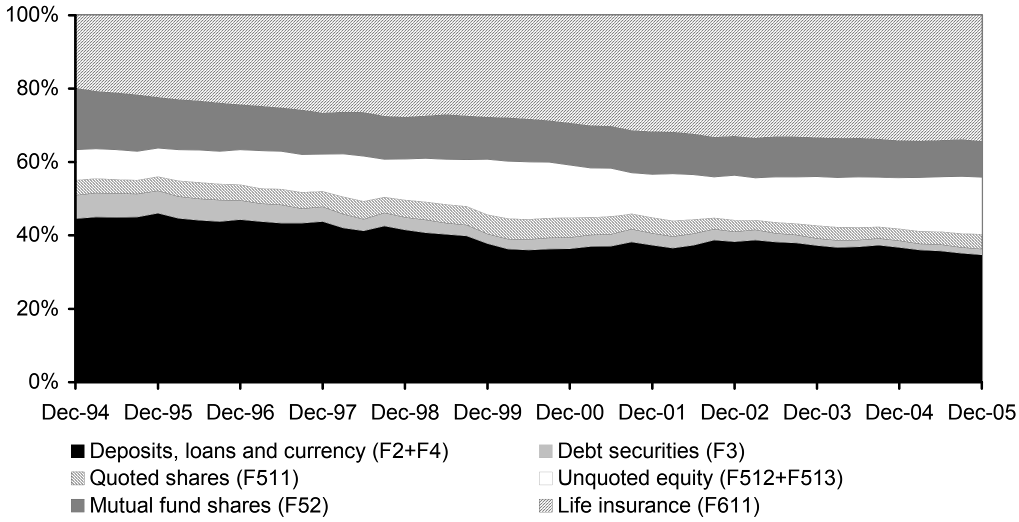
2. Households' financial wealth before transparency

While remaining predominant, the proportion of households' financial wealth held in the form of deposits, loans and currency declined almost continuously between December 1994 and December 2005, shrinking from 45% to 35%.[3] This fall is due to the attractiveness of competing instruments, particularly life insurance products.

[3] Loans in households financial assets are mainly shareholders loans and they represent a very small part of households' assets (1.1% in December 2005). Similarly, the share of currency held by households is only 1.3% in December 2005.

Chart 2

Initial structure of households' financial investments



Source: Banque de France (Financial Accounts).

As regards households' direct investment on capital markets, two opposite developments can be observed. Whereas the share of debt securities has sharply fallen from 6.4% to 1.5%, the proportion of shares and other equity in households' financial wealth has risen from 12,3% to 19.6% between 1994 and 2005. This rise is mainly due to the increase in the value of unquoted equity (*unquoted shares and other participation*) as, in spite of some fluctuations, quoted shares remained around a proportion of 4% of households' financial wealth.

The proportion of money market fund shares in households' financial wealth has declined from 5.7% in the fourth quarter of 1994 down to 1.0% in the fourth quarter of 2005. The share of other investment funds has also decreased but to a lesser extent (from 11.1% down to 8.7% over the same period).

Finally, as in many other European countries, life insurance experienced the most rapid and constant growth since the mid-90's in France. Indeed, the share of life insurance in households' wealth has risen from 19.9% in December 1994 up to 34.4% in December 2005.

3. Households' financial wealth after transparency

After transparency, households' financial wealth is shared out among the following "final" instruments:

- deposits, loans and currency (AF2+AF4),
- debt securities (AF3),
- quoted shares (AF511),
- unquoted equity (AF512+AF513),
- "additional real-estate assets" held *via* financial intermediaries (life insurance corporations and real-estate investment funds).

Thanks to the data sources used for the transparency process,[4] all these final instruments are available with the following breakdowns:

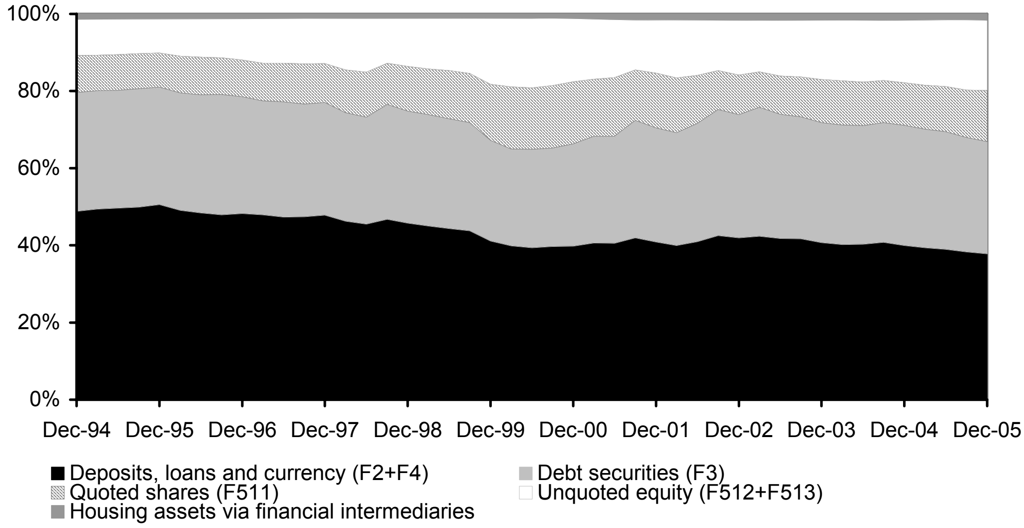
– less or equal 1 year / over 1 year maturity,

– national currency / foreign currencies,

– resident counterpart / non-resident counterpart.

Chart 3

Households' financial investments in final instruments



Source: Banque de France (Financial Accounts and Investment Funds Database).

Deposits, loans and currency are still predominant in households' final financial wealth although their share is also declining over the period (*from 49% down to 38%*). This share is not significantly changed by the transparency making process as non-bank financial intermediaries do not significantly re-invest the funds they raise from households in deposits.

Debt securities are competing with shares and other equity for the second place, their ranking depending on the fluctuations in equity valuations.

Compared to direct holding, the final instrument debt securities is the one which increases the most, as it hovers around 30% over the period against a maximum proportion of direct holding of 6.4% before transparency. Insurance companies are mainly responsible for this (see chart 4) as, at December 2005, 78% of households' final investment in debt securities are made via life insurance, 17% via mutual fund shares while the remaining 5% are held directly.

Shares and other equity are also increasing their weight in households' financial wealth after transparency, albeit in a lesser extent for unquoted equity than for quoted shares. As a matter of fact, unquoted equities are in average held directly at more than 85%, a smaller proportion (20%) being held via insurance corporations (see chart 6). Quoted shares are held in a fairly even manner: 42% *via* life insurance, 30% directly and 28% *via* mutual funds.

Over the period, shares and other equity present an upward trend, rising from an average 18% in 1994-1995 up to an average 30% in 2005.

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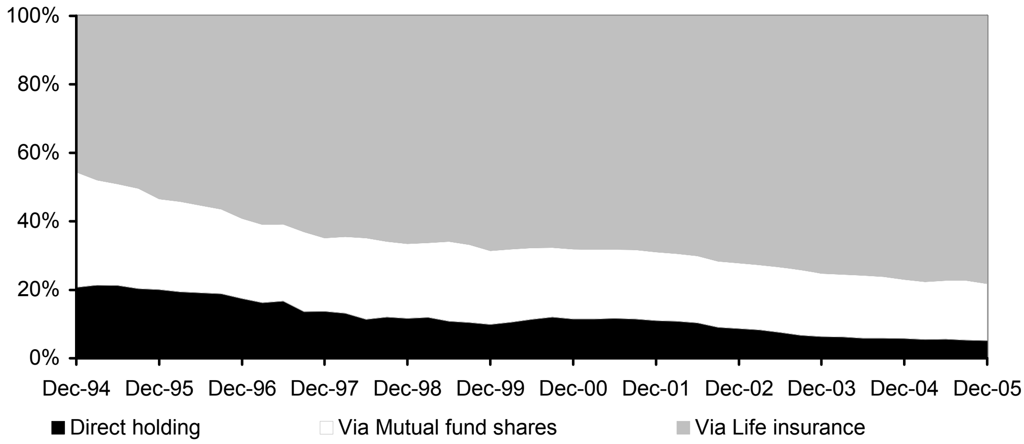
[4] Cf. methodology presentation in annex 1.

Finally, the additional real-estate related assets held by households via financial intermediaries are very low compared to both the other final instruments and the housing assets held directly (EUR 5,547 billions at December 2005),[5] as they only represent between 1.1% and 1.6% of households' final investment.

Chart 4

Direct and intermediated households' holdings of debt securities

In % of all final holdings of the instrument

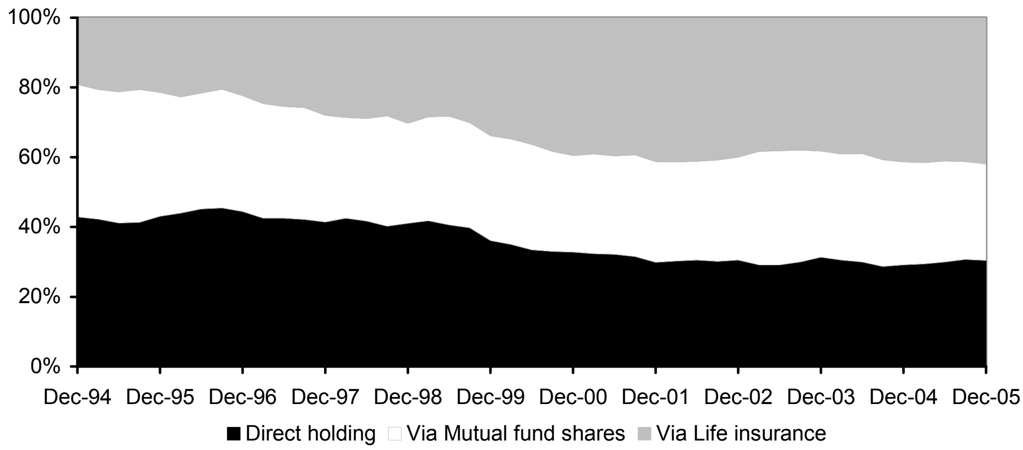


Source: Banque de France (Financial Accounts and Investment Funds Database).

Chart 5

Direct and intermediated households' holdings of quoted shares

In % of all final holdings of the instrument



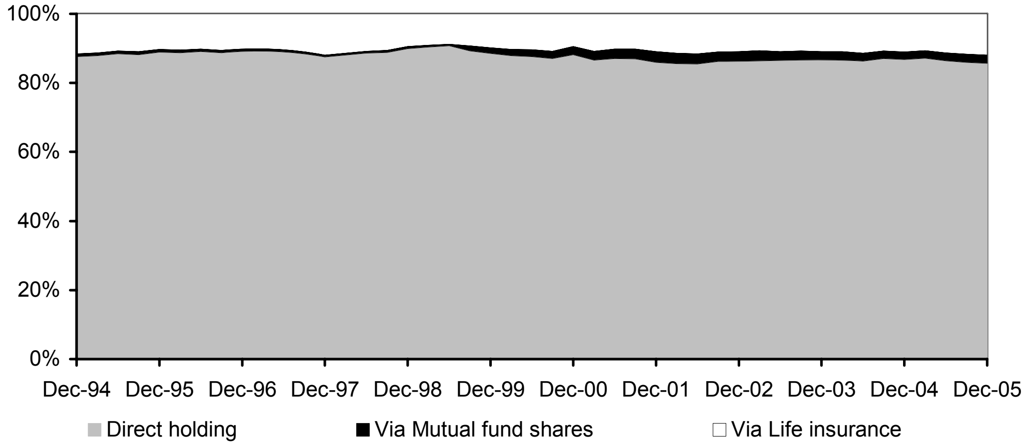
Source: Banque de France (Financial Accounts and Investment Funds Database).

5 See annex 3.

Chart 6

Direct and intermediated households' holdings of unquoted equity

In % of all final holdings of the instrument



Source: Banque de France (Financial Accounts and Investment Funds Database).

4. Other analyses derived from the transparency making-of results

The existing nomenclature for the description of households' financial wealth does not always provide sufficient details for a complete analysis of the risks borne by households (see O'Hagan, 2004).

The transparency making-of process helps to build a set of key indicators related to risks borne by households such as the weight of assets bearing a risk of loss of capital, the share of long-term instruments and of liquid assets.

Transparency helps also to assess currency risk and geographical diversification. This allows a more thorough analysis of households' financial assets.

4.1 Share of risky assets in households' wealth

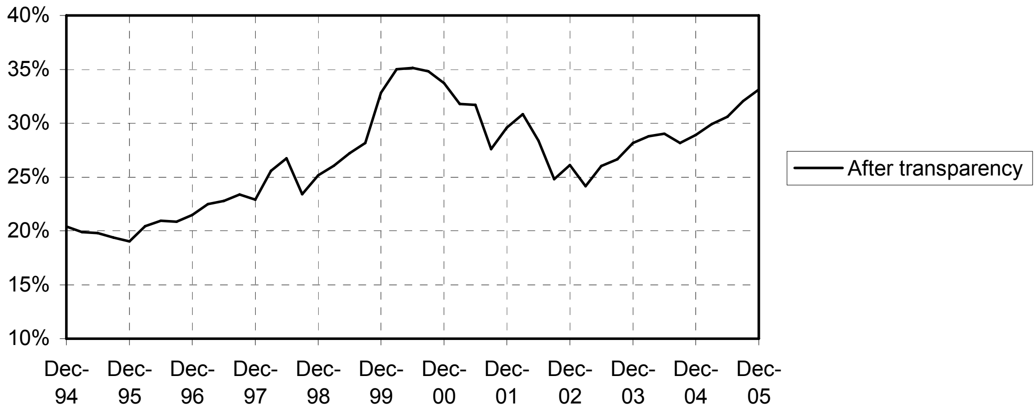
We define risky assets as assets highly sensitive to price fluctuations, and thus bearing a risk of capital loss. They include shares and other equity as regards financial assets and housing assets as regards non-financial assets.

ESA95 nomenclature for financial accounts does not allow a complete analysis of households' risky assets as instruments such as mutual fund shares and life insurance contracts conceal different kinds of risk (non unit-linked and unit-linked contracts themselves referring to different types of securities, bond funds as well as equity and mixed funds). The transparency making method provides the necessary breakdowns.

The proportion of risky assets in households' financial wealth illustrates and confirms the fact that, in France, households tend to hold more and more risky assets over time: the trend is clearly upward in spite of a decrease since the high of mid-2000 corresponding to the highs of the stock markets and the "Internet bubble" (see chart 7). At December 2005, 33% of households' financial wealth is invested, directly or via non-banking financial intermediaries, in risky assets.

Chart 7

Share of risky assets in households' financial wealth

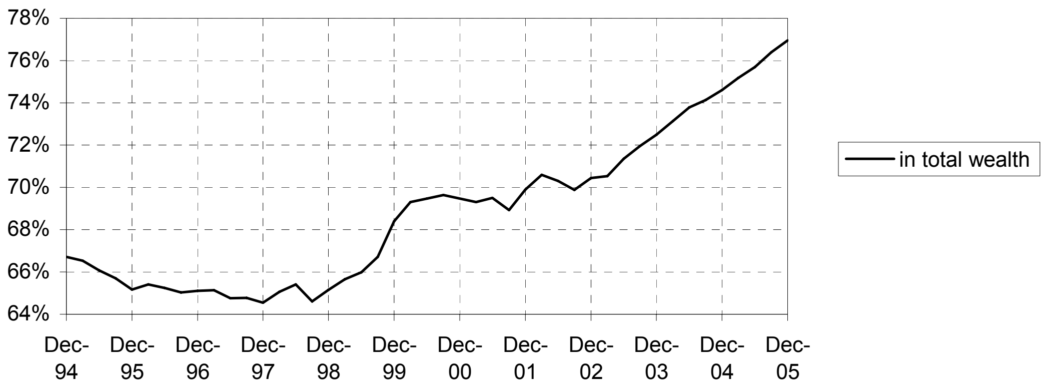


Source: Banque de France (Financial Accounts and Investment Funds Database).

Risky assets are of course predominant (77%) when housing assets are included and the trend towards more risk exposure is then clearer owing to the rapid rise in housing prices since 2000 (see chart 8).

Chart 8

Share of risky assets in households' financial and non-financial wealth



Source: Banque de France (Financial Accounts and Investment Funds Database).

4.2 Share of long-term assets

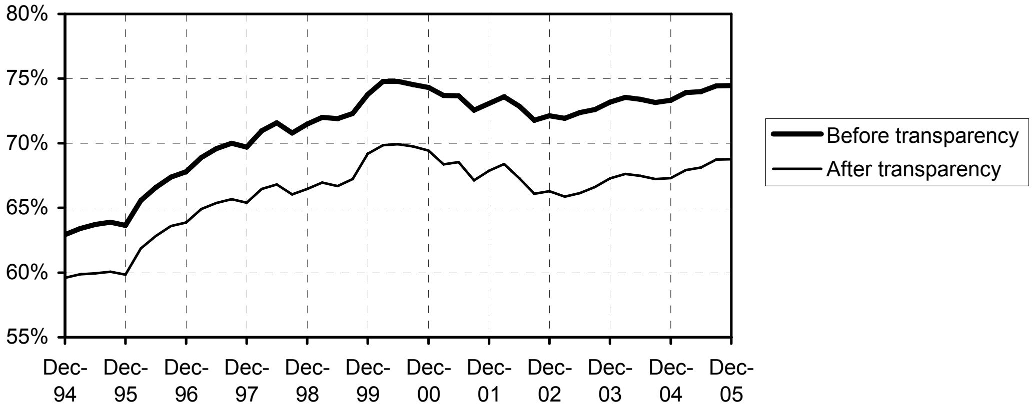
The maturity exposure of households financial investments provides insights into the evolution of the horizon of investment of households over time. The retained borderline is the one of the financial accounts: less or equal to one year and over one year, ie short term versus medium and long term.

The share of long-term assets is higher before than after transparency because households' assets in other mutual fund shares and life insurance corporations are all considered as long-term assets - indeed they are, from the households point of view - whereas these intermediaries hold a significant proportion of assets with a maturity of less than 1 year.

Both calculations confirm that households increasingly hold long-term assets (see chart 9). Their investment horizon gets longer over time, putting aside the consequences of the rise and fall of stocks prices. This upward trend can be related to the growing concerns of French households about their future pensions and their financing, probably with the objective to complement pay-as-you-go pension rights.

Chart 9

Share of long-term assets in households' financial wealth



Source: Banque de France (Financial Accounts and Investment Funds Database).

4.3 Share of liquid assets

Liquidity is considered as the ability to sell relatively rapidly the underlying instruments in order to convert it into cash.

The share of liquid assets in households' financial wealth after transparency is above the proportion before transparency and strikingly high. The difference is increasing from +25% in 1994 up to +35% in 2005. The main reason for this difference lies in the fact that, due to their high holding of quoted securities, life insurance corporations are liquid on their asset side whereas households' assets in life insurance may not be considered as liquid products insofar as tax-exemption[6] on realised capital-gains occurs after 8 years.

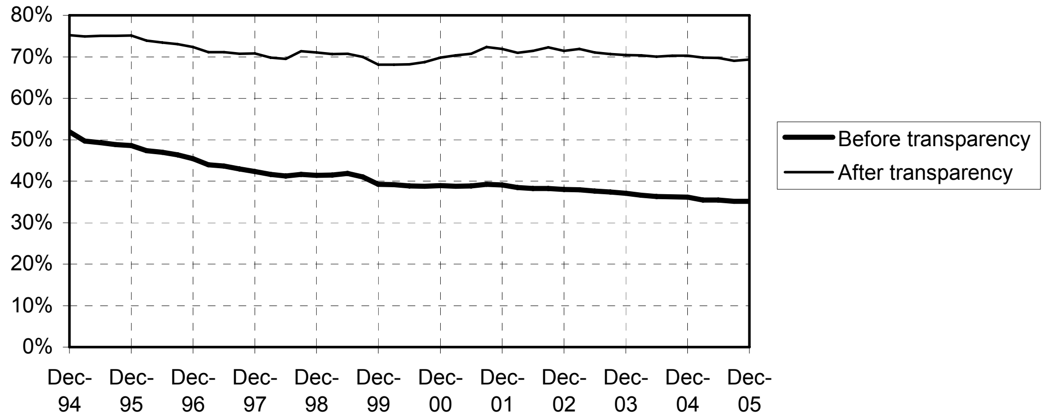
Besides, the decrease in the proportion of liquid assets before transparency (from 50% down to 35%) is due to the rise in life insurance contracts in households assets.

Nevertheless, a different picture would appear if banking intermediaries were made transparent. as banks hold an important share of non-liquid assets (loans mainly) on their asset side.

[6] Up to a maximum amount of annual withdrawal.

Chart 10

Share of liquid assets in households' financial wealth



Source: Banque de France (Financial Accounts and Investment Funds Database).

4.4. Foreign currency risk exposure and proportion of assets implying non-residents

In this sub-section, we analyse both the currency risk exposure of households to by distinguishing assets denominated in national currency versus assets denominated in other currencies and the exposure of households' investment vis-à-vis non-resident counterparts.

Currency risk exposure

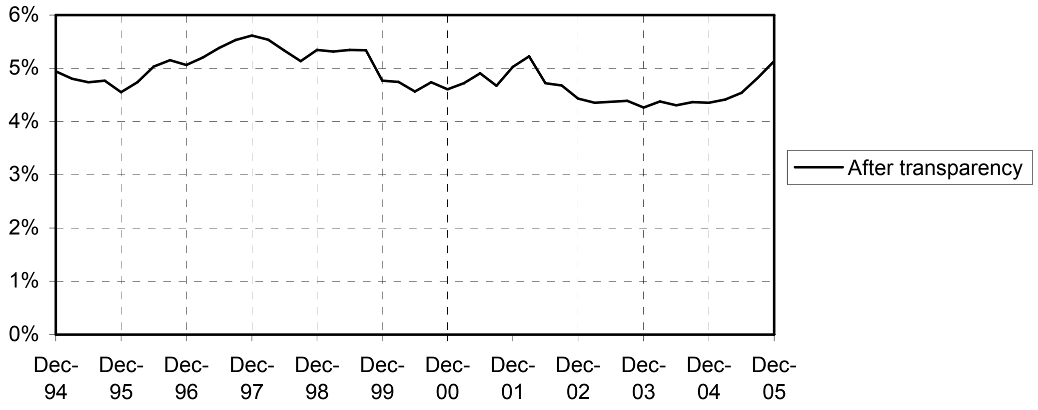
As it is not possible with French financial accounts to distinguish euro-denominated assets from foreign currency denominated assets for the instruments "other mutual fund shares" and "life insurance contracts", households' currency risk exposure can only be calculated after transparency.

The proportion of assets denominated in foreign currencies after transparency lies a little bit above 5% before the euro changeover and around 4.5% after. The euro changeover permitted geographical diversification and lowered the need for bearing currency risk for that purpose.

In any case, French households bear a low and relatively stable foreign currency risk.

Chart 11

Share of households' financial assets invested in foreign currencies



Source: Banque de France (Financial Accounts and Investment Funds Database).

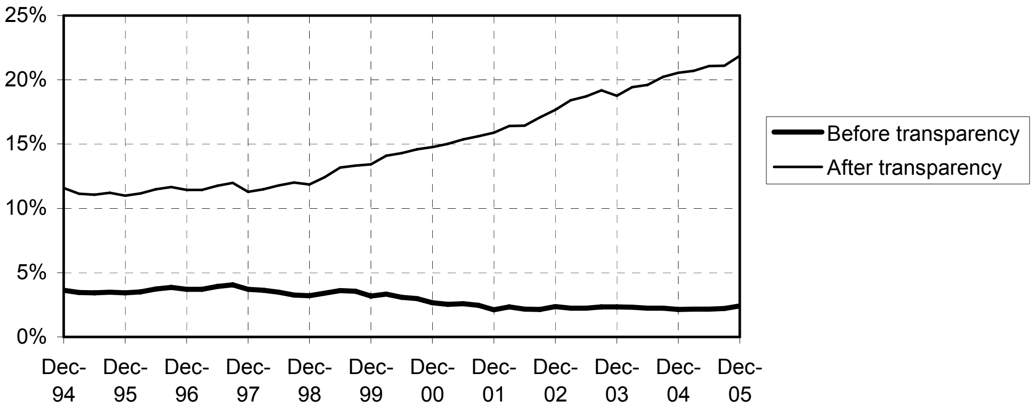
Exposure vis-à-vis non-resident counterparts

Before transparency, the proportion of households' assets invested in assets concerning non-resident counterparts is quite low, decreasing from 4% to 2% over the period, reflecting the fact that households primarily transact with resident intermediaries and do not easily invest directly with rest of the world counterparts.

However, geographical diversification also comes from financial intermediaries and is increasing. After transparency, the proportion of assets concerning non-resident issuers or counterparts begin to rise in 1998, from 11.5% up to 21.9% in December 2005. This increase has been made possible by the euro, which permits geographical diversification without currency risk. As a matter of fact, insurance corporations are prudentially limited in their capacity to incur such a risk.

Chart 12

Share of households' financial assets invested with non-resident counterparts



Source: Banque de France (Financial Accounts and Investment Funds Database).

5. Conclusion

As the weight of intermediated instruments in households' financial wealth increases in many countries, the interest for a thorough analysis of these diversified and complex financial operations gets more and more relevant. The use of a transparency making-of method is one way of doing so, allowing to complement the use of financial accounts for the analysis of households' financial wealth.

Thus, as regards French households' financial investment, the transparency making process confirms the predominance of deposits but also their relative decline. It also illustrates the fact that households' holding of debt securities heavily increases through insurance corporations and competes for the second rank with shares and other equities. Among the latter, quoted shares benefit from indirect holding via financial intermediaries, while unquoted shares are mainly held directly.

Even more interesting is the light shed on the different types of risk borne by households:

- assets with market risk increase, and represent a fairly high proportion when housing assets are also considered,
- the maturity of the households' financial assets is longer than that of the assets of insurance corporations and mutual funds to which they entrust their savings. Besides, due to the importance of life insurance investments, it is also less liquid,
- households' financial investment is increasingly geographically diversified owing to the rise in their life insurance investments. However, thanks to the euro, this diversification has not induced an increase in their foreign risk exposure.

Households' investment with monetary financial institutions (*deposits*) have not been made transparent. This is no doubt one way for further investigations although extending the transparency making method to this part of the households' financial wealth doesn't seem straightforward and would deserve further in-depth deliberations.

Annex 1:
Presentation of the transparency-making method retained

We present here the method retained for making transparent households' investments with non-bank financial intermediaries.

As mentioned in Introduction, the analysis of household financial wealth does not precisely reveal the instruments on which households really invest their money, especially for life insurance and mutual fund shares. Nevertheless, it is possible to make this intermediation process transparent by using the asset structure of these financial intermediaries and apply it to households' investment in mutual fund shares and life insurance.

Thus, the final investment of households can be described with the following "final" instruments:

– deposits, loans and currency (AF2+AF4),

– debt securities (AF3),

– shares and other equity (AF51), with the distinction quoted / unquoted,

– and "additional housing assets" held via financial intermediaries (as life insurance corporations and mutual fund shares invest in housing).

Yet, as financial intermediaries also invest part of their assets with other financial intermediaries, this transparency-making method has to be applied several times so as to completely eliminate intermediated investments from the structure applied to households intermediated assets.

Indeed, life insurance corporations invest in mutual fund shares and mutual funds are allowed to invest into other mutual fund shares. Therefore, after one round of "re-allocation", mutual fund shares remain in households' assets. Thus, the remaining amount of investment in mutual fund shares should be replaced by the structure of their investment, giving again a residual amount invested in mutual fund shares,... This process corresponds to an arithmetic sum that can be mathematically solved with the corresponding formula :

Presentation of the arithmetic formula to calculate the sum of the amounts made transparent when re-invested in the same intermediated instrument

The example is presented with money market fund shares but applies similarly for other mutual fund shares.

If M represents the amount invested in money market fund shares by households, p the proportion that money market funds re-invest in money market fund shares and a the proportion that money market fund shares invest in a "final" asset, then the assets re-invested after the first application of the asset structure is given by T1, etc…:

$$T_1 = aM$$

$$T_2 = apM$$

$$T_3 = ap^2M$$

$$\ldots$$

$$T_n = ap^{n-1}M$$

Therefore, the total amount invested in a final asset through money market fund shares is given by S:

$$S = T_1 + T_2 + T_3 + \ldots + T_n = aM + apM + ap^2M + \ldots + ap^{n-1}M$$

$$S = a\frac{1-p^n}{1-p}M$$

$$S \xrightarrow[n\to\infty]{} a\frac{1}{1-p}M$$

The data sources used are described in the table below :

Code	Instrument	Data source used for the asset structure
F521	Money market fund shares	The asset structure of money market investment funds has been calculated from the quarterly Investment funds database of the Banque de France and applied to households' assets in money market fund shares. For securities, the structure has been derived from the quarterly security-by-security portfolio of money market funds available since March 1999. Some assumptions have been made by the author for certain breakdowns not always available since the beginning of the period.
F522 + F523	Other mutual fund shares	The asset structure of other investment funds has been calculated from the quarterly Investment funds database of the Banque de France and applied to households' assets in other mutual fund shares, except those invested in foreign funds (see below) and those invested in housing funds which are invested in real estate. For securities, the structure has been derived from the quarterly security-by-security portfolio of investment funds available since March 1999. March 1999 structure is used from December 1994 to December 1998 in the absence of any other information. Assets directly invested by households in foreign mutual fund shares have not been made transparent as it is not possible to elaborate an asset structure for them.

Code	Instrument	**Data source used for the asset structure** (cont)
F611	Life insurance contracts	The asset structure of insurance corporations has been calculated from quarterly financial accounts. Then, quarterly reports from the Insurance Corporations Supervisory Commission have been used in order to elaborate a structure for life insurance corporations only.[1] This structure has been applied to households' assets in life insurance reserves. Besides, although not available in financial accounts, the assets invested in housing assets by life insurance corporations in representation of insurance technical reserves have been re-introduced in order to obtain the proportion of assets invested in real estate by life insurance corporations.

[1] Insurance corporations are divided into three broad categories by the Insurance Corporations Supervisory Commission: life insurance corporations, non-life insurance corporations (damage) and re-insurance corporations.

The asset structures of mutual fund shares and life insurance corporations provide the following breakdowns:

- assets with an initial maturity of less or equal 1 year / over 1 year,
- assets invested in euros / foreign currencies,
- assets invested with residents / non residents.

Annex 2:
Detailed groupings used for risk analyses

Risky and non-risky assets after transparency

	Non-risky assets
AF2+AF4	Deposits, currency and loans
AF3	Debt securities
	Risky assets
AF51	Shares and other equity
AN_transp	Other housing assets via non-bank financial intermediaries

Analysis in terms of maturity before transparency

	Short-term assets (≤ 1 year)
AF2+AF4	Deposits, currency and loans with a maturity under 1 year
AF331	Short-term debt securities
AF52_part	Money market fund shares
	Long-term assets (> 1 year)
AF2+AF4	Deposits, currency and loans with a maturity over 1 year
AF332	Long-term debt securities
AF51	Shares and other equity
AF52_part	Other mutual fund shares
AF611	Life insurance

Analysis in terms of maturity after transparency

	Short-term assets (≤ 1 year)
AF2+AF4_short	Deposits, currency and loans less or equal 1 year
AF331	Short-term debt securities
	Long-term assets (> 1 year)
AF2+AF4_long	Deposits, currency and loans over than 1 year
AF332	Long-term debt securities
AF51	Shares and other equity
AN_transp	Other housing assets via non-bank financial intermediaries

Analysis in terms of liquidity before transparency	
Liquid Assets	
AF2+AF4	Deposits, currency and loans with a maturity under 1 year
AF3	Debt securities
AF511	Quoted shares
AF521	Money market fund shares
AF52_part	Mutual fund shares (general public funds + foreign funds)
Non-liquid assets	
AF2+AF4	Deposits, currency and loans with a maturity over 1 year
AF512+AF513	Unquoted equity
AF52_part	Real estate fund shares and other non-liquid mutual fund shares
AF611	Life insurance

Analysis in terms of liquidity after transparency	
Liquid assets	
AF2+AF4_short	Deposits, currency and loans less or equal 1 year
AF33	Debt securities
AF511	Quoted shares
Non-liquid assets	
AF2+AF4_long	Deposits, currency and loans over than 1 year
AF512+AF513	Unquoted equity
AN_transp	Other housing assets via non-bank financial intermediaries

Analysis in terms of currency risk after transparency	
Liquid assets	
AF2+AF4_short	Deposits, currency and loans in euros
AF33	Debt securities in euros
AF51	Shares and other equity in euros
AN_transp	Other housing assets via non-bank financial intermediaries
Non-liquid assets	
AF2+AF4_short	Deposits, currency and loans in foreign currencies
AF33	Debt securities in foreign currencies
AF51	Shares and other equity in foreign currencies

Proportion of assets invested with non-resident counterparts before transparency

Financial investments with resident counterparts	
AF2+AF4_res	Deposits, currency and loans with residents
AF33_res	Debt securities issued by resident companies
AF51_res	Shares and other equity issued by French companies
AF521	MMFS issued by resident MFI
AF52_res	Other mutual fund shares invested with resident investment funds
AF611	Life insurance contracts
Financial investments with non-resident counterparts	
AF2+AF4_non-res	Deposits, currency and loans with non-residents
AF33_non-res	Debt securities issued by non-resident companies
AF51_res	Shares and other equity issued by non-resident companies
AF52_non-res	Mutual fund shares directly invested by households with foreign investment funds

Proportion of assets invested with non-resident counterparts after transparency

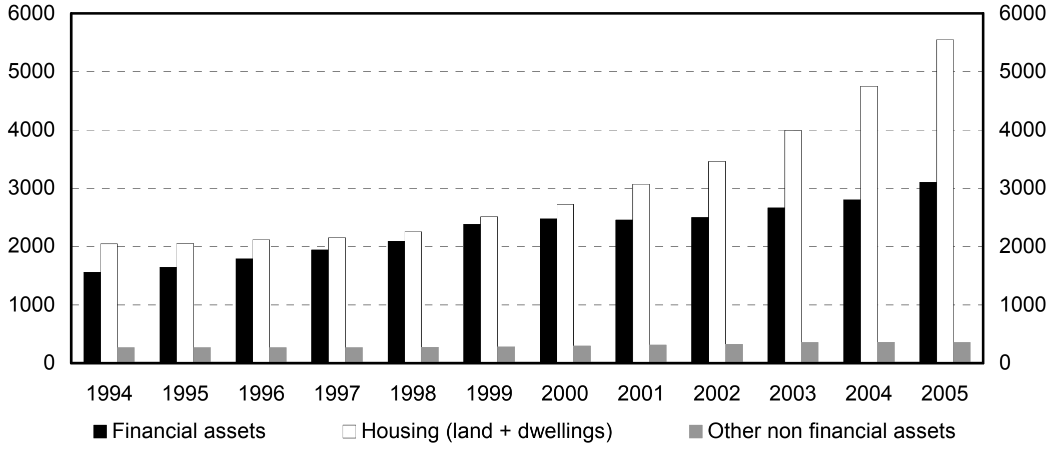
Financial investments with resident counterparts	
AF2+AF4_res	Deposits, currency and loans held with residents
AF33_res	Debt securities issued by residents
AF51_res	Shares and other equity issued by residents
AN_transp	Other housing assets via non-bank financial intermediaries
Financial investments with non-resident counterparts	
AF2+AF4_res	Deposits, currency and loans invested with non-residents
AF33_res	Debt securities issued by non-residents
AF51_res	Shares and other equity issued by non-residents

Annex 3:
French households' total wealth

Chart 13

French households' total wealth

In EUR billions



Sources: Banque de France (Financial Accounts) and INSEE.

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