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PROJECT ON HISTORICAL FINANCIAL ACCOUNTS TIMES SERIES: PRELIMINARY RESULTS

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WORKING PARTY ON FINANCIAL STATISTICS

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PROJECT ON HISTORICAL FINANCIAL ACCOUNTS TIME SERIES ¹

PRELIMINARY RESULTS

1. Introduction

The OECD, jointly with the Economic Research Unit of Pioneer Investments and UniCredit, is working on a project that aims at extending back the currently available time series of the Financial Accounts for a group of OECD countries: Italy, Germany, France, UK, Spain, U.S., Canada, Japan. This is especially relevant for the following reason: the introduction of the new method of classification based on the SNA-93 during the 1990s has made it necessary to reconcile past data with the new series, in order to produce as much as possible consistent time series covering a reasonably long time horizon, to be used both for studying the changes in the allocation of wealth over time and for comparing the main trends across different countries.

Longer time series give the opportunity to better analyse many relevant issues such as:

- The evolution of financial structures over the time
- The evolution in the liabilities side of non-financial corporation
- Correlations between economic cycles and financial cycles
- Convergence in the financial structures of European countries, Japan, US and Canada
- Measures of wealth effects
- Model the demand of financial assets
- Measures of the degree of openness of different financial markets
- The evolution and relative importance of financial institutions

1 This is a joint project between OECD, Pioneer Investments Economic Research, and the UniCredit Research Board.

Steering Committee of the project: François Lequiller and Michèle Chavoix-Mannato, OECD; Riccardo De Bonis, Bank of Italy; Daniele Fano, Pioneer Investments Economic Research; Stefano Chiarlone, UniCredit Research and Strategy unit.

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Many thanks to the members of the Steering Committee and to Laura Marzorati from Pioneer Investments Economic Research for her precious contributions.

This report describes research in progress and it is distributed to elicit comments and to further debate. The views expressed in this report are those of the author and of the research teams. They do not necessarily represent those of the OECD, Pioneer Investments and/or UniCredit Group.

Although data availability would potentially allow to analyze the whole set of institutional sectors, the project focused as an initial step just on two of them:

- **Households** (S14-S15);
- **Non-Financial Corporations** (NFC) (S11)

Moreover, the project concentrates on **stocks** and their trends for both assets and liabilities **from 1980 onwards**.


Finally, although both consolidated and non-consolidated data are potentially usable, the analysis focuses on non-consolidated data only; the reason is that there are no clear indications of how the process of consolidation is carried out by each country and this limits the possibility of making reliable international comparisons.

We have worked on the recent series from OECD.Stat – based on the SNA-93 - and on the previous OECD *Golden Books* (the database previously managed by the OECD DAFPE Directorate). We have highlighted a set of differences in the years for which both sources provide data. The results of this analysis have been sent to participating countries, in order to discuss the discrepancies directly with each country's Central Bank, and to collect further suggestions about which source to rely upon.

The remainder of the document is organized as follows. In the next paragraph we present the general methodology, with special focus on the difference between the Golden Book and SNA93 classification. Section 3 summarizes for each country the most important issues. The fourth paragraph presents the first feedbacks by Central Banks. In paragraph 5 we explain how we addressed data processing. In paragraph 6 we present and comment briefly the provisional time series sketch based on the preliminary estimates we have. The last paragraph presents some concluding remarks.

2. SNA 93 versus the Golden Books

The sector breakdown of the *Golden Books* is more or less the same as the one requested by the SNA 93 and used in the OECD.Stat. The main difference between the two classifications concerns the instruments, the SNA 93 being more detailed because of the introduction of new instruments (see conversion table below).

<u>Sectoring</u>		<u>Sectoring</u>
Institutional sectors		Financial institutions.....31F, 31B
Total economyS		General Government32F,32B
Non financial corporations.....S11		Other domestic sectors (NEI)33F, 33B
Financial corporations.....S12		1. Non financial enterprises, corporate and quasi-corporate, pr
General Government.....S13		2. Household (including private non financial unincorporated enti
Household and non profit institutions serving households.....S14-S15		and private non-profit institution serving households
Rest of the worldS2		3. Also social security when independent and not allocated
		Rest of the world.....34F, 34B
Classification of instruments		Classification of instruments
AF1 Monetary gold and special drawing rights		1. Gold
AF2 Currency and deposits		2. Cash and other transferable deposits
AF21 Currency		3. Other deposits
AF22 Transferable deposits		4. Short-term securities
AF23 Other deposits		5. Short-term loans
AF3 Securities other than shares		6. Trade credits
AF4 Loans		7. Bonds
AF5 Shares and other equity		8. Shares
AF51 Shares and other equity, excluding mutual funds shar		9. Long-term loans
AF511 Quoted shares		10. Net equity of households on life insurance reserves
AF512 Unquoted shares		and pension funds
AF513 Other equity		11. Others
AF52 Mutual funds		
AF6 Insurance technical reserves		
AF61 Life insurance and pension		
AF611 Life insurance reserves		
AF612 Pension funds reserves		
AF7 Other accounts receivable		

2.1 Conversion table

In order to merge data from the two sources, we have constructed the following conversion table, which allows us to obtain a good degree of correspondence both over time and across the majority of the countries analysed:

Golden Book		SNA93	Instruments
1	⇒	AF1	Monetary gold and special drawing rights
2+3	⇒	AF2	Currency and deposits
4+7	⇒	AF3	Securities other than shares
5+9	⇒	AF4	Loans
8	⇒	AF5	Shares and other equities
10	⇒	AF6	Insurance and pension technical reserves
11+6	⇒	AF7	Other accounts receivable

3. Main discrepancies between the Golden Book and SNA93/ESA95 financial accounts

< SPAIN >

For both sectors S11 and S14-S15 there is a **good grade of continuity** between the Golden book, that publishes data from 1980 to 1997, and the financial accounts of the Central Bank of Spain, that cover the period 1990-2005.

At a first stage, we have analyzed both the consolidated and the non consolidated data provided by the two sources and discovered that discrepancies are smaller for the **non consolidated** accounts; this is due to the fact that most of the data published by the Golden Book in the case of Households and NFC are non consolidated (see Golden Book, methodological note).

Problems of reconciliation

Reconciliation table

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
S11	Asset	●	●			●		●
	Liabilities	●	●		●	●		●
S14	Asset					●	●	●
	Liabilities							●

Discrepancy = Golden book data/New Central bank Financial assets - 1

During the overlapping period (1990-1997) the two datasets show the same trends, with some discrepancies in the levels and in the asset mix that appear particularly relevant in the case of loans and shares.

In more detail:

- **2+3 Currency and deposits:** this item is 33% larger in the Central bank time series than in the Golden book for sector S11
- **Trade credits:** they are included in item 5+9 in the Golden book series instead of being included in the Item Others as in the new time series
- **5+9 Loans:** for sector S11 the financial accounts statistics of the Central Bank provide detail of trade credits since 1990. A similar detail is, however, unavailable for previous years, because the Golden Book does not publish such data. Therefore, one possibility would be to estimate the pre-1990 observations and include such estimates in the voice “Others”, so as to fill in the gap between the two sources. The problem is even worse in the case of sector S14-S15, because none of the two sources provides detail of trade credits. Hence, one possibility would be to assume that trade credits coincide perfectly with the **loans** and include the latter in the item “**Others**”.

In the case of liabilities, the amount of stocks is lower in the new financial accounts than in the Golden book. One possible reason is the change in the definition of the two sectors, which might have brought about a significant reallocation from households to NFC.

- **8 Shares:** this item is much larger in the Central bank statistics compared to the Golden book. The difference might be due to a change in the method of evaluation of the shares, but unfortunately we did not find a methodological note on this subject from the Golden book. Another explanation may be the exclusion of unquoted shares in the Golden Book time series.
- **10 Insurance technical reserves:** since this item includes all mathematical reserves, current risk funds and accident funds, it is reasonable to assume that it includes item AF62.

For sector S11 detail for this item is not provided in the Golden Book series.

<GERMANY>

The Central bank dataset covers the period 1991-2005, while the Golden Book provides information from 1970 to 1997.

There is a good grade of continuity between the golden book and the new time series for both sectors, with the only exception being the **financial liabilities** of the **household sector**. One possible explanation is the fact that in the Golden book another sector, separated from S11 and S14-15, includes private and public housing activities (sector h2, "Housing"). In our estimation we have decided to attribute the total amount of liabilities to the Household sector.

General remarks

Starting from 1990, data refer to west and east Germany, whereas previous figures pertain to Western Germany alone. Despite this, there are no significant breaks between 1990 and 1991.

*Problems of reconciliation***Reconciliation table**

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
		● discrepancy (+)						
S11	Asset		●			●		
	Liabilities		●		●	●		●
S14	Asset				●	●		●
	Liabilities							●

Discrepancy = Golden book data/New Central bank Financial assets - 1

Despite showing similar trends, the two data sources show different levels, which is especially true in the case of loans and shares.

In more detail:

- **2 + 3 Currency and deposits:** this item is larger in the Central bank time series for sector S11, but smaller for sector S14-S15.
- **6 Trade credits:** as for Spain, we included the trade credits in item 5+9 “Loans”
- **5 + 9 Loans:** for **sector S11** there is an impressive gap between the two data sets for both asset and liability sides. In the case of assets, there is no evidence of switch to the Household sector, while in the case of liabilities this might have had occurred. In the case of sector S14-S15, we observe a significant gap only in the **liability series**. In order to fill in the gap, we have assigned the total amount of liabilities of the housing sector to the household sector.
- **8 Shares:** the data differs significantly in each of the two sectors for both assets and liabilities. The reason might be a change in the method used to evaluate the shares, although this conjecture does not seem to be supported by any methodological note of the Golden Book since in both two sources the evaluation methods are based on market prices.

In the Golden book methodology we found that the subscription of investment fund units - mainly by households – is however, regarded as indirect investment in security markets and is accordingly included in the figures on bonds and shares acquired. But this element does not solve the problem, because the amount of mutual funds is not as important as the difference in the value of shares between the two time series.

- **10 Insurance technical reserves:** for sector 11 the data is available from the Bundesbank series only.
- **11 + 6 Others and trade credits:** in the asset side for sector S14-S15, this item is generally larger in the Golden Book than in the financial accounts of the Bundesbank.

< **ITALY** >

The Central Bank/NSO dataset, which has been recently published, covers the period from 1950 to 2004, while the Golden Book provides information starting from 1989 up to 2000.

There is a **good grade of continuity** between the golden book and the new time series for both sectors: Households and Non Financial Corporations. The only exception is found for the Assets side in the case of Shares, Insurance technical reserves and for Other accounts receivable both for the asset and liabilities sides.

*Problems of reconciliation***Reconciliation table**

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
		● discrepancy (+)						
S11	Asset							●
	Liabilities							●
S14	Asset				●	●		●
	Liabilities							

Discrepancy = Golden book data/New Central bank Financial assets - 1

- **2+3 Currency and deposits:** there is just a slight difference between Central bank time series and the golden Book for both sectors S11 and S14-S15.
- **5+9 Loans:** this item is not indicated in Central bank time series for the sector S14-S15.
- **10 Insurance and pension technical reserves:** this item is not present in the Golden Book time series for the sector S11
- **11+6 Other accounts receivable/payable:** for Sector S11 there is a large difference between the two datasets both for assets and liabilities. For sector S14-S15 there is a problem only for assets.

< **UNITED KINGDOM** >

The Central Bank/NSO dataset covers the period from 1987 to 2004, while the Golden Book provides information starting from 1987 up to 1997.

There is a **good grade of continuity** between the Golden book and the new time series for both sectors: Households and Non Financial Corporations, with the only exception in the case of assets for currency and deposits and for other accounts.

*Problems of reconciliation***Reconciliation table**

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
		● discrepancy (+)						
S11	Asset		●					
	Liabilities			●				
S14	Asset							
	Liabilities							

Discrepancy = Golden book data/New Central bank Financial assets - 1

- **2+3 Currency and deposits:** in the asset side, this item is bigger in the Central bank time series for sector S11 and quite smaller in the assets for S14-S15, compared to the Golden Book series
- **4+7 Securities other than shares:** this item is slightly smaller in the Central bank time series for both assets and liabilities of sector S11 and quite smaller in the case of assets of the sector S14-S15.
- **8 Shares and other equities:** there is a small difference between the two datasets for both assets and liabilities of sector S11.
- **11+6 Other accounts receivable/payable:** this item is smaller in the Central bank time series for assets of sector S11.

< USA >

The Central Bank/NSO dataset covers the period from 1955 to 2004, while the Golden Book provides information starting from 1980 up to 1996.

There is a **good grade of continuity** between the golden book and the new time series for both sectors: Households and Non Financial Corporations, with the only exception in the case of assets for currency, securities other than shares, loans, other accounts and loans, other accounts in the case of liabilities.

*Problems of reconciliation***Reconciliation table**

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
		● discrepancy (+)						
S11	Asset					●		
	Liabilities					●		
S14	Asset					●		●
	Liabilities				●			●

Discrepancy = Golden book data/New Central bank Financial assets - 1

- **4+7 Securities other than shares:** this item is bigger in the Central bank time series of assets of sector S14-S15.
- **-5+9 Loans:** there is a difference of level between the two datasets for assets of sector S14-S15.
- **8 Shares and other equities:** there is an impressive difference between the two series for assets and liabilities of sector S11 while the difference of level is smaller for assets of sector S14-S15.
- **11+6 Other accounts receivable/payable:** there is a larger difference between the two series for assets and smaller for liabilities of sector S11 and assets and liabilities of sector S14-S15.

< **FRANCE** >

The Central Bank/NSO dataset covers the period from 1976 to 2004, while the Golden Book provides information starting from 1980 up to 1997.

There isn't a **good grade of continuity** between the golden book and the new time series for both sectors: Households and Non Financial Corporations, in particular for the currency, loans, shares and other equities both in the case of assets and liabilities.

Problems of reconciliation

Reconciliation table

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
S11	Asset				●	●		
	Liabilities		●					●
S14	Asset			●	●		●	
	Liabilities				●			●

Discrepancy = Golden book data/New Central bank Financial assets - 1

- **2+3 Currency and deposits:** there is an important discrepancy between the two datasets for liabilities of sector S11
- **4+7 Securities other than shares:** this item is smaller in the Central bank time series for assets of sector S14-S15.
- **5+9 Loans:** there is a discrepancy between the two datasets for liabilities of sector S11 and for liabilities of sector S14-S15.
- **8 Shares and other equities:** there is an impressive difference between the two datasets for assets of sector S11 while the difference of level is smaller for liabilities for sector S14-S15.

< CANADA >

The Central Bank/NSO dataset covers the period from 1961 to 2004, while the Golden Book provides information starting from 1970 up to 1997.

There is a **good grade of continuity** between the Golden book and the new time series for both sectors: Households and Non-Financial Corporations, with the only exception of shares and other securities and of other accounts receivable, in both asset and liabilities.

*Problems of reconciliation***Reconciliation table**

		● discrepancy (-)	Currency and deposits	Securities other than shares	Loans	Shares and Other Equities	Insurance and pension technical reserves	Other accounts
		● discrepancy (+)						
S11	Asset					●		●
	Liabilities					●		●
S14	Asset						●	●
	Liabilities							

Discrepancy = Golden book data/New Central bank Financial assets - 1

- **8 Shares and other equities:** there is an impressive difference between the two datasets for assets and liabilities of sector S11 while this item is smaller in the Central bank time series for the assets of the sector S14-S15.
- **10 Insurance and pension technical reserves:** this item is bigger in the Central bank time series for assets of sector S14-S15
- **11 + 6 Other accounts receivable/payable:** this item is bigger in the Central bank time series for assets and liabilities of the sector S11 and S14-S15.

4. First feedbacks from the central banks

Eight countries (Italy, Germany, France, UK, Spain, U.S., Canada, Japan) were included in the project aiming at backwards updating the Financial Accounts time-series. All countries were requested to carefully look at the files including both sets of data (from the DAF Golden books and from the current STD database), to note the likenesses and differences, by sector and by asset/liability, between them, and to send their remarks and comments on the work undertaken by the Secretariat. Countries were not asked to build long series and to send them in order not to give make their workload heavier.

Most countries find this project a very good idea because it corresponds to a frequent demand from users and fully support the principle of creating long series for comparative analysis purposes. It has been that it would be desirable to have financial time series as long as other national accounts data. They explain main differences by basic reasons such as the fact that the Golden book was not fully SNA based, and when it was it referred to SNA68/ESA79, the fact that revisions have been carried out between the termination of the Golden books and the re-establishment of the financial accounts by STD, the fact that even within golden books data, revisions were not always provided and published.

Canada makes a number of comments/suggestions and thinks it would have been easier to simply ask the selected countries for the maximum length of their time series and for the transmission of historical data with highlights of any definitional breaks in the series. However, due to a heavy workload, it has not been possible to assess in detail (i.e., specific series) the current financial accounts database with the defunct Golden books. A few general remarks when comparing both sources are the following:

- Any institutional sectors impacted by the last historical revision (in particular, governments) should not be referenced from the Golden books. On the other hand, it may be more reasonable to link other institutional sectors like financial institutions ... notably, deposit-taking institutions.
- Looking at the relevant 1969-70 period for series continuity:
 - for non-financial corporations, the data line up fairly well, with the only significant gap being a re-allocation of sub-instruments between F5 and F7;
 - for households, the data also line up fairly well, with the major difference being a historical revision affecting government unfunded pension schemes.

The reaction of **the United States**, in conformity with the Canadian comment, has been to provide OECD with very long times-series from 1950 to 2005. The indirect approach proposed by the OECD is useless for them.

Germany faces two main problems: data before 1991 are based on ESA 1979 and refer to West Germany. Consequently, data based ESA79 should be eliminated, which means that the time series cover the period 1991-2005 without any possibility to build longer backwards series. Another difficulty was the definition of Households in the Golden books. The assumptions made by the OECD to link both sets of series have been judged the easiest way; in particular the proposal to attribute the ‘housing’ sector to the household sector (S14) is acceptable by Germany.

Spain observes that data before 1990 are not of good quality and therefore does not agree that we link both sets of series. Fortunately, work is currently under way to expand the historical series backwards to 1980 and should be completed by end of March 2007. Then a further extension from 1970 onwards might be finished in one year from now.

Italy has some comments to explain the discrepancies that had been highlighted in the comparison between both sets of data. Most of them are due to differences in the classification of some instruments: as examples given for households (sector S14-S15):

- the differences found for instruments F2 (currency and deposits) are due to the reclassification of repos from F4 to F2;
- the differences found for instruments F5 (shares and other equity) are due to the reclassification of mutual fund shares from F7 to F5 as well as to the new estimation procedure for the unquoted shares;
- the differences found for instruments F6 are due to the reclassification of non life insurance from F7 to F6;

For **the United-Kingdom**, the current data, as transmitted to the OECD, cover the period 1987-2005. However, information on balance sheet figures by sector exists in the annual national accounts (Blue Book) publications and is available for 1975 to 1986. The extent to which this information is based on ESA79 is not known, in particular, the sectors include "Personal", which contains life assurance and pension funds, as well as NPISH, and "Industrial and Commercial Companies". Total financial assets and liabilities are given, but the instrument breakdowns look very different at first glance.

Financial account figures by sector appear in earlier publications, in particular the Personal sector with data from 1953 to 1963. The Industrial and Commercial Companies sector appears in the 1966 Blue Book for the first time, but only with data going back to 1960. Net acquisitions of financial assets and net acquisitions of financial liabilities are not shown separately, but maybe some deductions could be drawn. Again, the breakdown of instruments looks very different.

Unfortunately, it is not a priority for the United-Kingdom to re-work the historical ESA79 data into an ESA95 format. Furthermore, it is said in the ONS publication "Introducing the European System of Accounts 1995 in the UK" (M Dolling (1997), ISBN 1 85774 255 9) in paragraph 5.1 that "for financial transactions and balance sheets it may prove impractical to produce realistic new accounts prior to the "Big Bang" changes in the operation of UK financial markets in 1986. Where actual data are available they can be put into the new format, but it is likely that a variety of assumptions will have to be made in any attempt to prepare historic accounts."

However, an access to the appropriate Blue Book publications might be given to the OECD and the ONS is ready to help with as much advice and guidance as possible.

5. Data processing

Financial Accounts data have been retrieved from two different sources: OECD statistics, supplied to OECD by Central Banks and Statistical Institutions (published on their respective websites), and OECD "Golden Book" publications.

Both kinds of data have been inserted into a relational database, where the series have been checked and harmonised to produce consistent outputs. A comparison between the OECD data, published on OECD.Stat, with those publicly available from the EUROSTAT's Financial Accounts has also been carried out. The comparison was made for all the European Countries over the period 1995-2004; and no significant discrepancies between these two sources have been noticed.

The utilization of a relational database allows to start from a consistent and homogeneous set of data and consequently to produce different levels of aggregations and selections, and to obtain flexible outputs.

6. The evolution of financial assets and liabilities

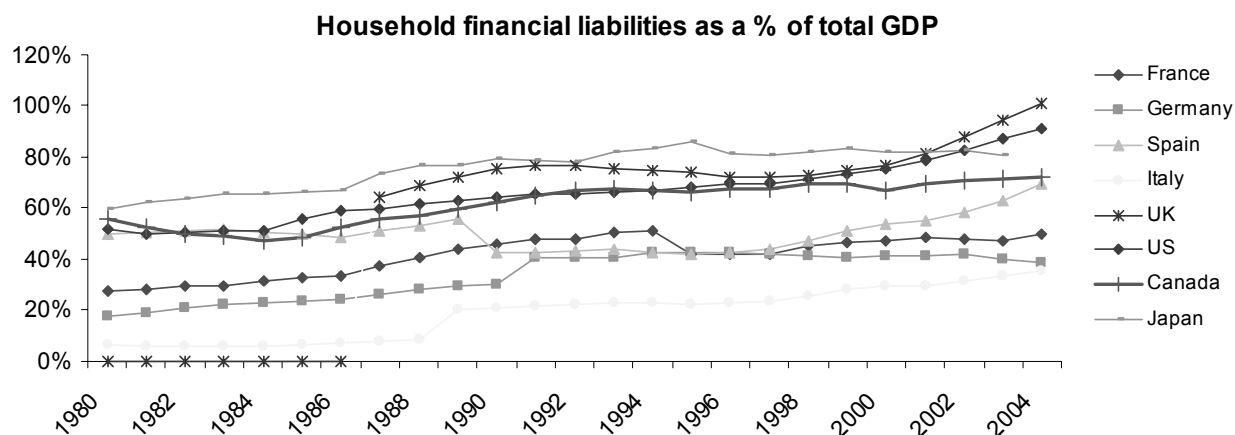
In this very preliminary analysis we focus on three selected themes:

1. Household financial asset trend: the last 25 years
2. Liabilities of the private sector: Household and Non-financial corporations
3. The composition of stocks by financial instruments: towards a more diversified world

6.1 Household financial asset trend: the last 25 years

In this paragraph we exemplify the evolution of household financial assets in the last 25 years as it appears from an initial and still provisional construction of the time series according to the methodology described above.

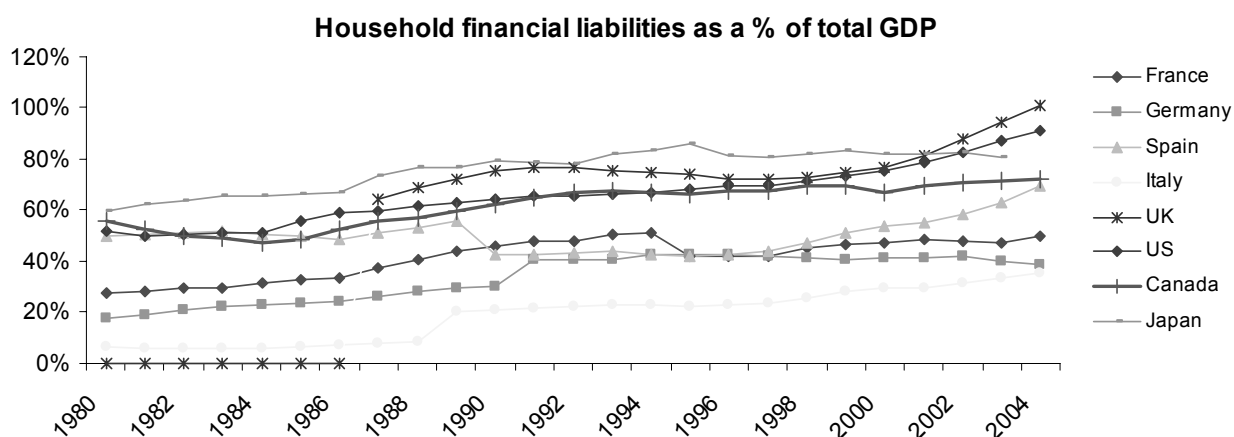
The following figure shows household financial assets as a percentage of GDP. The use of GDP at the denominator makes the series comparable, as it adjusts both for the size of an economy and inflation.



Over the past 25 years, household wealth as a percentage of GDP presented an upward trend in all countries analysed. The total financial asset in percentage of GDP appears to have increased moderately during the period 1980 to 1990. First signs of an important growth are evident starting from 1995 mainly in UK and US. Rankings are apparently relatively stable, but growth rates are different, possibly because of different savings rates and asset composition.

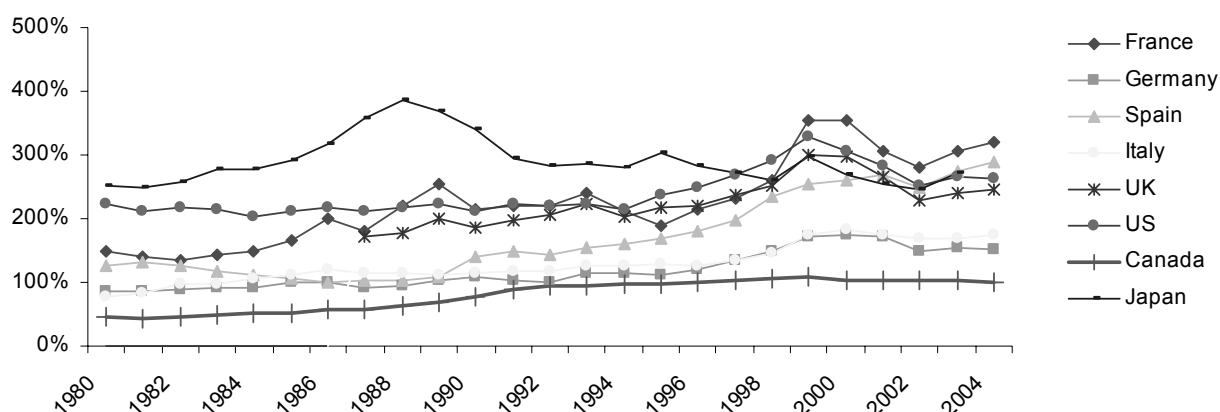
6.2 Liabilities of private sector: Households and Non-financial corporations

Household liabilities relative to GDP seem to have been more stable compared to assets. In the Euro-zone the data show a moderate increase during the period under review, with the only exception being Spain with an important growth in the last 8 years.



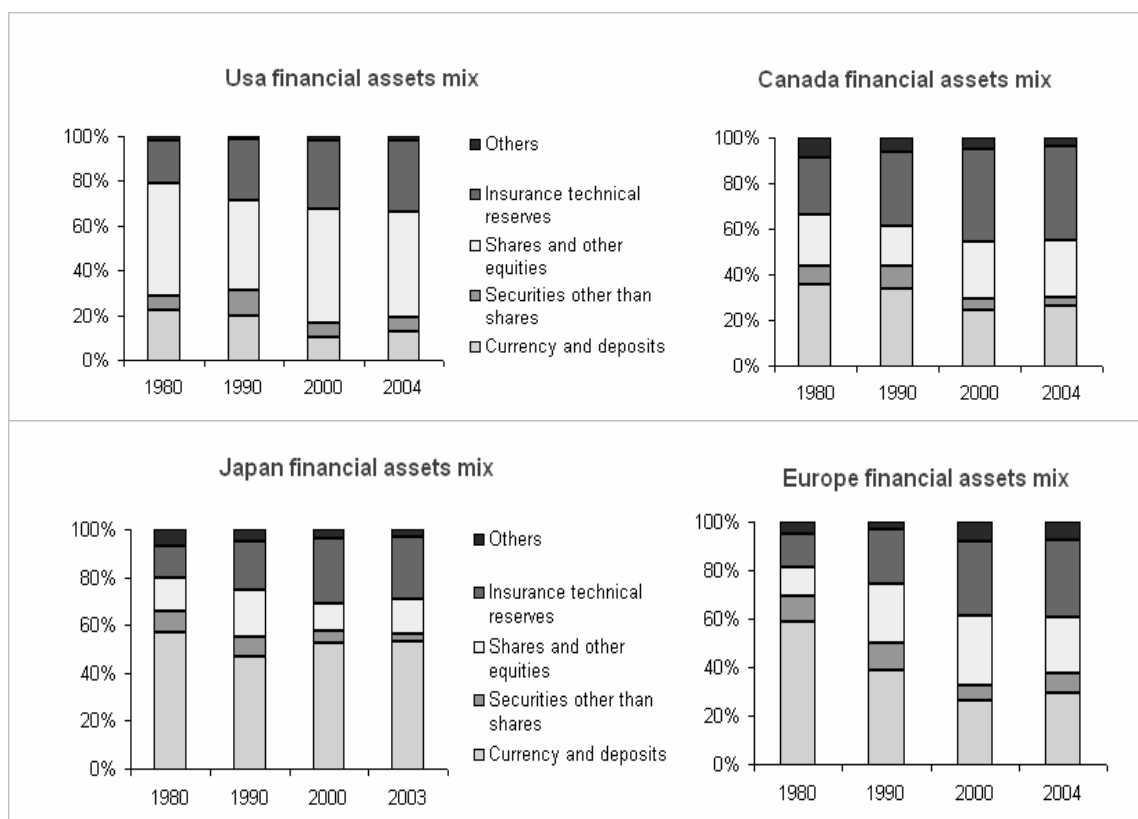
It would appear that for Non-financial Corporations, on the other hand, the percentage of liabilities in relation to the GDP in the countries under analysis increased steadily between 1995 and 2000 with the only exception being Canada, UK and Japan. The levels seem structurally different across countries.

Non financial corporation liabilities as a percentage of nominal GDP



6.3 The composition of assets by financial instruments: towards a more diversified world?

Table 1. The international context shows strong disparities across macro areas



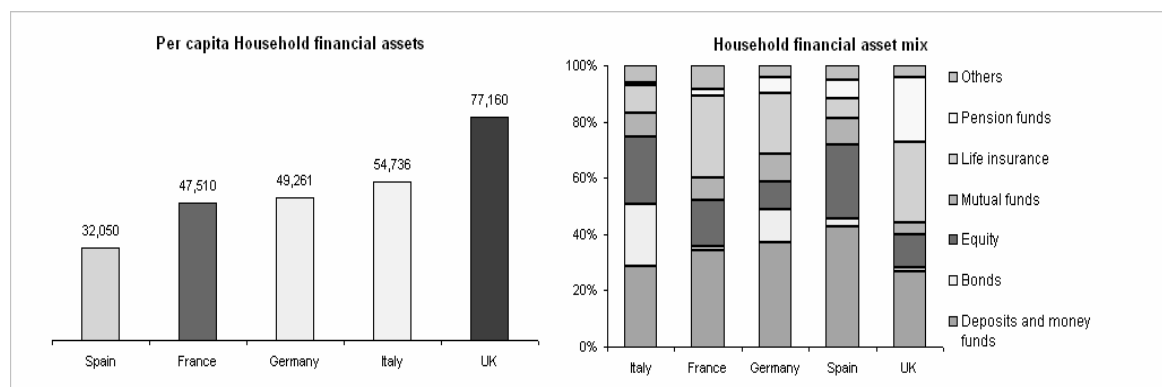
Source: OECD estimation on central bank financial account data and golden book data

The graphs above highlight a very dynamic financial structure both in North America and Europe. The only exception is Japan, where the current asset mix did not change that much compared to the '80.

In US and Europe the last 25 years have witnessed:

- An impressive increase of holding and long term instruments as insurance and Pension Funds at the expenses of deposits.
- This shift has been driven by a progressive institutionalisation, the indirect participation on the financial market through mutual fund and retirement products in the last 10 years appears to have increased significantly.
- In spite of this revolution the percentage of direct holding of share as remained quite stable, with structural country difference in the share of risky assets.

Table 2. The European context- each of European countries shows a specific profile in per capita terms and in relation to the asset mix - 2005



Source: OECD estimation on central bank financial account data and golden book data

Despite the common trend (Securitization and long term investing), **Europe appears still a quite heterogeneous region**, with strong cross-country differences both in per capita terms and in the asset mix.

7. Concluding remarks

The aim of this project is to fill a gap in the Financial Accounts time series in order to help both practitioners and academics to better understand current trends.

The appendix that follows contains a selection of recent papers that, either indirectly or directly, refer to these issues and testify the relevance of this endeavour.

I would like to express on behalf of the Steering Committee and the research team our warmest thanks to those who have helped us so far. We have been encouraged by the first responses to our work and hope to be able to construct in a reasonable amount of time a more complete and as far as possible reliable dataset.

APPENDIX - SELECTED REFERENCES TO RELEVANT LITERATURE

In order to give an idea of the potential interest for the availability of comparative time-series of financial accounts for the OECD countries, we highlight in this paragraph some reference to recent economic contributions using empirical data.

Saving and growth, the contribution of finance to growth

Browning, M., and Lusardi, A., *Household saving: micro theories and micro facts*, (1995)

Callen, T., Thimann, C., *Empirical determinants of household saving: evidence from OECD countries*, IMF (1997)

Demigurc-Kunt, A., and Levine, R., *Financial Structure and Economic Growth: A cross country comparison of banks, market and development*, Mit Press (2001)

de Serres, A. and Pelgrin, F., *The Decline in Private Saving Rates in the 1990s in OECD Countries: How Much Can be Explained by Non-Wealth Determinants?*, OECD (2003)

OECD, *Comparison of household saving ratios: Euro Area/United States/Japan*, (2004)

Levine, R., and Beck, T., *Stock markets, banks and growth: panel evidence*, *Journal of Banking and Finance*, 28, (2004)

Asset prices, business cycle and wealth effect

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