Massimo Cingolani

Società Italiana degli Economisti (SIE), Italy

✉ m.cingolani@eib.org

Finance Capitalism: A Look at the European Financial Accounts

Summary: The paper explores the financial accounts database of Eurostat, a rich set of data that is largely unexploited. It describes the main financial developments at EU level during the 1990-2010 period, both in terms of institutional agents and financial products. The paper provides evidence on the consequences of asset price inflation for wealth distribution between institutional agents and argues that the conceptual scheme of the "double monetary circuit" of existing and recycled savings helps in describing and explaining the observed patterns of financialisation.

Key words: Europe, Asset price inflation, Income distribution.

JEL: E01, N100, N200, D530, E440, G010.

The *Financial Accounts* database of Eurostat is more recent than the American *Flow of Funds* (Morris A. Copeland 1944; Wassily Leontief and Andras Brody 1993) and has been much less exploited, in part because of a still incomplete homogeneity in the quality of the data. Nonetheless it is very rich dataset and is the only tool that allows direct country comparisons of financial developments at European level. It is therefore interesting to explore its content. The descriptive analysis presented here covers the period 1990-2010, for which the salient facts are examined, mainly at EU and Euro Area's level, with a breakdown in terms of institutional agents and financial products. The data is interpreted with reference to a conceptual framework that can be broadly qualified as post Keynesian (Marc Lavoie 1992, 2009; Paul Davidson 2011; Eckhard Hein and Engelbert Stockhammer 2011; but also Luigi L. Pasinetti 2007). The simple model retained refers to the central transaction identity of the stock-flow consistent approach of Wynne Godley and Lavoie (2006), which represents a natural choice for the analysis of financial data produced by contemporary national accounts (Eurostat 1996; United Nations, Organisation for Economic Cooperation and Development, European Commission, International Monetary Fund, and World Bank 2003, 2009).

The identity can be traced back to Michal Kalecki and has been a reference for the authors working in his tradition, such as Malcolm Sawyer, Joseph Steindl, Eckhard Hein, Jan Toporowski and others, including Augusto Graziani and Alain Parguez, reference authors for the theory of the monetary circuit (Joseph Halevi and Rédouane Taouil 2002). The latter is a modern attempt to rationalise the concept of a *monetary production economy* developed by John Maynard Keynes (Keynes 1963), and it is one of the few available theoretical tools that provide a macroeconomic ex-

planation of the monetary role of banks, allowing for meaningful policy analyses. For this reason, it is used extensively in the interpretation of the data examined.

The financial accounts of Eurostat are established under ESA1995 (Eurostat 1996) and are therefore fully integrated into a complete stock-flow consistent representation of economic reality organized around the concept of institutional sector (see Section 2), which corresponds to the macroeconomic grouping of the monetary theory of production. They offer many ways to test the propositions deriving from this theory, and the descriptive/interpretative analysis presented here represents a preliminary step in this direction. The results obtained concern the consequences of asset price inflation for the wealth distribution between the main institutional agents. The conceptual scheme of the "double monetary circuit" of existing and recycled savings is proposed as a useful scheme for interpreting observed financialisation patterns.

1. A Simple Conceptual Framework

The standard macroeconomic models usually consider a single aggregate good in an economy with three sectors: the "private sector", the Government, and the Rest of the World (RoW), or foreign sector (Graziani 1988, pp. 98-100). The private sector corresponds to the consolidation of the institutional sectors S11, S12, S14 and S15 in ESA1995. The Government corresponds to the sector S13 and the RoW to the sector S2 (see Table 1 in Section 2). In national accounts the financial sector is separated from the rest of the non-Government domestic producers, but banks and financial institutions are consolidated into one single aggregate, including also public banks and the central bank, generally majority-owned by the State.

In this sectoral breakdown, one can easily miss the role of the banking sector, whose role in the theory of the circuit is to produce liquid liabilities (money) used for payments by the other sectors. The main problem, which is only partially solved in the national accounts, is that the process of money creation and destruction, which typically develops in the transactions between the central bank and other monetary institutions on one side, and households and the non-financial enterprises on the other side, is neglected. All these sectors are consolidated within a single "private sector" aggregate within which internal transactions cancel out and which produces a single good called "output", separated from the non-money output of the Government. Although this output can be measured in monetary units, in the standard model this money is essentially a "veil", irrelevant for the determination of economic equilibrium. In contrast with this practice, it is typical of the approaches of the *monetary theory of production* such as that of Graziani (2003), the *generalised monetary circuit* approach developed by Parguez, or the closely related *theory of emissions* of Bernard Schmitt and the Dijon-Fribourg-Lugano school (Sergio Rossi 2007), to put money and the banking sector at the centre of the analysis and therefore to separate the banking sector in its two components of commercial banks and the central bank (S121 and S122) from the rest of the private sector. The traditional macroeconomic aggregation into a consolidated private sector can however still be used, as done in Section 3 below, provided that the role of financial institutions is not forgotten.

To discuss money creation and destruction, it is also necessary to adopt a dynamic perspective. In doing so, it is logical to start from a situation where the initial stock of financial assets is zero, since it is not possible to explain the creation of money based on previously existing amounts of the same asset (Graziani 1984a, p. 8). The generalised Kalecki's identity (or profit equation) provides the convenient starting point for analysing changes in assets between two periods, since it represents the key flow condition providing the "transaction" link between the opening and the closing balance sheets in national accounts, or in other words between stocks and flows (See Chapter 2 of Godley and Lavoie 2006, for a detailed explanation of the *transaction* and *balance sheet matrices*).

Source: Drawn by the author.
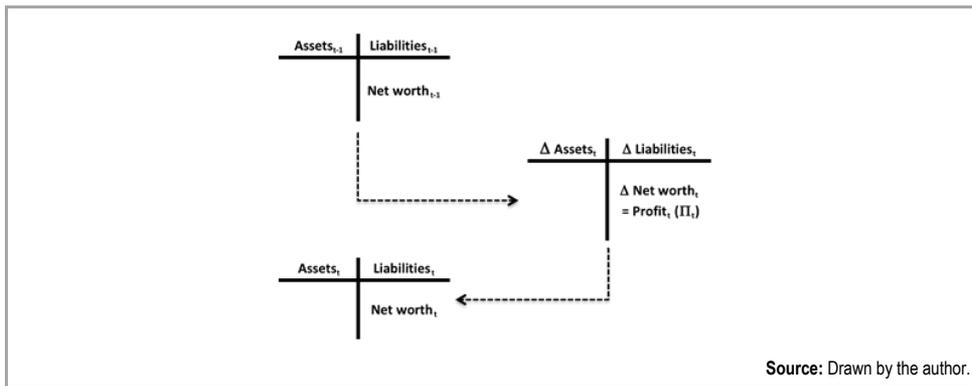
Figure 1 The Generalized Kalecki Identity and Financial Accounts

Realized profits thus represent the main stock-flow financial variable linking the economy's balance sheets between two successive closing dates. In an economy starting in the initial period with no assets, transactions between two periods and the closing balance sheet coincide in net terms. The above justifies the use of the Kalecki's relation to discuss a number of policy issues For the three macroeconomic sectors aggregation retained usually, the relation says that if the private sector accumulates a net financial surplus, this is due either to an accumulation of Government debt (Government deficit) or to an accumulation of debt of foreigners towards residents (corresponding to a balance of payments current account surplus for the domestic economy when net factor incomes and current transfers from abroad are neglected).

$$\Delta F_P = DEF_G + \left(X - M\right) \qquad (1)$$

Where:

ΔF_P = Accumulation of financial assets by the domestic private sector;
DEF_G = Financial liabilities accumulated by the State (Government deficit);
$X–M$ = Liabilities accumulated by the Rest of the World towards residents (NIA Current Account Surplus on goods and services for the domestic economy).

Relation (1) is named here after Kalecki although strictly speaking it corresponds to Kalecki's original profit equation only when households do not save and capitalist invest the whole of their surplus (Toporowski 2008). These were the assumptions retained by Kalecki (1929, 1933), who developed the link between net Government expenditures, the trade balance and profits in articles published in Polish and integrated in English in his famous article on the theory of profits (Kalecki 1942). When workers do not save, in a closed economy without State, gross profits are given by the sum of investment plus capitalists' consumption. Kalecki worked on a breakdown between workers and capitalists rather than one between households and enterprises, but if workers' savings are neglected and profits, rather than investments, are the focus of the analysis, it is acceptable to name relation (1) after him, since he discovered all of its terms. John Hicks (1973, pp. 30-31) also gives prominence to Kalecki's original variant of relation (1) as the "social accounting equation". One can note that in (1) the private and the public sectors can be aggregated or disaggregated in any number of institutional sub-sectors. For instance the financial balances can be taken net or gross of fixed capital formation, the latter net or gross of capital consumption (depreciation). In his celebrated paper, Steindl (1982) consolidates the banking sector with the rest of the private sector. Toporowski (2000) shows instead how, once the banking sector is netted out from the private and public sector, relation (1) can be related to the inflows and outflows of liquid assets into the capital market, which are the main determinant of asset price inflation.
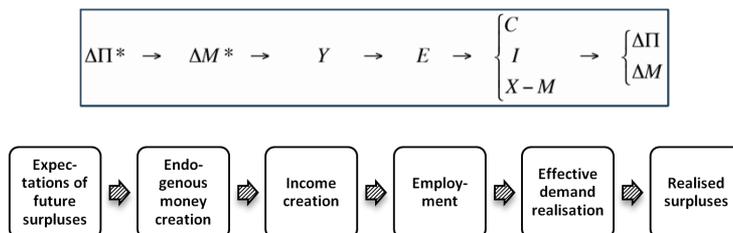
As it is the case for all stock-flow consistent modelling in discrete time, relation (1) assumes that a flow variable (here profit) corresponds to the difference between the end of period and the beginning of period value of the same stock variable (net worth). However, strictly speaking, the stock difference is equal to the net flow of the variable, i.e. the difference between the cumulated inflows and outflows. In applying relation (1) to actual data, one thus makes an implicit approximation. Indeed, even if national accounts recommend gross recording of all transactions, they recognize that this is not the practice followed for the change in inventories or for financial flows (Eurostat 1996, p. 14). If one is interested in gross flows, the only solution is to shorten the accounting period enough for the net flow to be either an outflow or an inflow. In practice available data do not allow to do this, so one must either work with net flows as an approximation of gross flows or try to work with continuous time models (Giancarlo Gandolfo 1981). [1]

Irrespective of the nature of flows, being an identity, (1) can be interpreted *ex ante* as an equilibrium condition (possibly considered gross of investment), as it reflects the expectations of the private domestic sector that anticipates goods profits if, ceteris paribus, the budget deficit is expected to be higher and/or the Rest of the World is expected to borrow in the domestic market to buy domestically produced goods (Parguez 2010-2011). This condition on private sector expectations can correspond to a situation of full employment and full utilisation of productive capacity, on or out of a steady state. *Ex post* it is an accounting truism fulfilled at any point in time. It reflects the "temporary monetary equilibrium" (Graziani 2003, pp. 125-126),

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[1] The author is grateful to Bernard Vallageas for raising this point.

corresponding in general to a neoclassical "real long-term disequilibrium" with unemployment and underutilisation of productive capacity. In this case the accumulation of real and financial stocks during a particular time interval is in part involuntary. If some of the accumulated stocks are, or will prove to be, unwanted, they measure the divergence of reality from the expectations on the basis of which it was generated and thus reflect a real disequilibrium (Frank Hahn 1984a, b). Taken as an expression of a monetary equilibrium, the Kalecki's identity reflects a temporary equilibrium without market efficiency and thus without rational expectations (Jean-Michel Grandmont 2008), i.e. it describes a non-Modigliani-Miller world where finance counts (Pasinetti 2012). In this world, expectations must be exogenous, contrary to the main hypothesis retained by the rational expectations literature (Davidson 1982-1983) and followed by both new neoclassical and new Keynesians. The relation implies that the generalised theory of the monetary circuit developed over time by Parguez (1975, 1977, 1980, 1996a, b, 2001) is not a static theory of the single period. The latter was used in the early literature of the circuit to illustrate the role of money creation and destruction.

The *ex post* interpretation of (1) out of an equilibrium of perfect forecasts (rational expectations) implies also a causality between its three terms, which, in line with the theory of the monetary circuit, goes from expected profits (marked below with an asterisk), to money and revenue creation, employment, effective demand and finally realised profits, money destruction and accumulation of liquid balances. This is a consequence of the fact that in the circuit money is created and is extinguished by credit. In line with the banking school position and contrary to the currency school position, credit makes deposits, thus investment causes savings, cf. Schmitt (1975a), Lavoie (1984), Louis-Philippe Rochon (1999), Charles Rist (2002), Graziani (2003, pp. 82-88). In his doctoral thesis, Olivier Giovannoni argued that, in the US, government expenditures are the strongly exogenous demand component driving the business cycle, which implies that it is the Government expected deficits (or surpluses) that drive the expectations of the rest of the sectors of the economy.

$$\Delta\Pi^* \quad \rightarrow \quad \Delta M^* \quad \rightarrow \quad Y \quad \rightarrow \quad E \quad \rightarrow \quad \begin{cases} C \\ I \\ X-M \end{cases} \quad \rightarrow \quad \begin{cases} \Delta\Pi \\ \Delta M \end{cases}$$

Expectations of future surpluses ⇨ Endogenous money creation ⇨ Income creation ⇨ Employment ⇨ Effective demand realisation ⇨ Realised surpluses

The econometric analysis of exogeneity carried out in Giovannoni (2006) and in Giovannoni and Parguez (2007) uses the technique of co-integrated VARS developed by Johansen (see Katarina Juselius 2006) that aims at capturing long-term exogeneity. The results obtained confirm the previous results of Robert Eisner (1994) and are not in contradiction with the approach of Edward E. Leamer (2007), who identifies residential investment as a leading indicator of the business cycle, implying some short-term exogeneity of the housing sector, both Eisner and Leamer having

used more conventional exogeneity tests.[2] The results of Giovannoni are thus in line with the theory of the monetary circuit and the hierarchy it introduces between institutional sectors for the realisation of their expectations through the creation of money by credit, the hierarchy being: (i) State; (ii) Banks; (iii) Enterprises; (iv) Households (Parguez 2008). With the necessary caveats, identity (1) can be tracked statistically, as done in Section 3.

2. The Data Examined

The financial accounts database of Eurostat is compiled according to European Accounts regulations (Eurostat 1996[3]). As with all data produced by the European statistical office, an effort is made to obtain data comparable across Europe based on a common set of consistent definitions. ESA95 rules are fully consistent with SNA 1993 and are being progressively adapted to the SNA 2008 (United Nations, Organisation for Economic Co-operation and Development, European Commission, International Monetary Fund, and World Bank 2003, 2009).

The ESA95 system: "is built around a sequence of inter-connected accounts. The full sequence of accounts for the institutional units and sectors is composed of current accounts, accumulation accounts and balance sheets … Current accounts deal with the production, generation, distribution and redistribution of income and the use of this income in the form of final consumption. Accumulation accounts cover changes in assets and liabilities and changes in net worth (the difference for any institutional unit or group of units between its assets and liabilities). Balance sheets present stocks of assets and liabilities and net worth." (Eurostat 1996, par. 1.61.)[4] The Financial Account is one of the two accumulation accounts that closes the sequence of production accounts and it records the changes in the financial assets and liabilities that compose net lending or borrowing by type of financial instrument. In other words, the balances of the Financial Account reflect the previous balances from the production accounts and impact on the total balance sheets of the system. In flow terms, the account deals with the allocation of current financial savings after fixed investments, illustrating their interaction with financial savings inherited from the past in funding financial investment. An example of the transition between the total financial assets of two successive years is given in an Annex available upon request. For the institutional sectors, ESA95 gives consistent definitions for net lending and borrowing balances and indicates how these balances are used in the creation and destruction of financial assets. The classification of financial assets in ESA95 does not correspond to that of the International Accounting Standards. Other main differences between ESA1995 and IAS 30, 32 and 39 are (Eurostat 1993):

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[2] The author is grateful to an anonymous referee for the reference to Leamer.
[3] The ESA95 manual, available also on line, is often referred to in the following text (http://circa.europa.eu/irc/dsis/nfaccount/info/data/esa95/en/esa95en.htm) and its Annexes, available upon request. Most of the time the reference is to the relevant paragraph of the manual.
[4] The sequence comprises 4 groups of accounts dealing with: I. Production, II. Distribution, III. Accumulation, IV. Balance sheet.

(i) Maturity breakdown: original maturity in ESA 95, residual maturity in IAS.

(ii) Netting of financial assets and liabilities: gross recording in ESA 95, net reporting in IAS 1 under some conditions.

(iii) Valuation: in ESA 95 market price for most assets, but not for deposits, loans and other accounts receivable or payable (as they are not marketable); under IAS 39 all financial assets measured at fair value.

The financial assets retained by ESA95 are grouped under seven product headings, whose total makes total financial assets, and 5 main institutional sectors. Both are described in Table 1 below.

**Table 1** Financial Products and Institutional Sectors

Financial products

F.1	**Monetary Gold and special drawing rights (SDRs)**	
	Includes a) monetary gold (F.11); b) special drawing rights (SDRs) (F.12).	
F.2	**Currency and deposits**	
	Consists of all types of deposits in national and in foreign currency.	
F.3	**Securities other than shares**	
	Includes bills, bonds, certificates of deposit, commercial paper, debentures, financial derivatives, and similar instruments normally traded in the financial markets.	
F.4	**Loans**	
	Generally loans are characterised by the following features: a) the conditions governing a loan are either fixed by the financial corporation granting the loan or negotiated by the lender and the borrower; b) the initiative concerning a loan normally lies with the borrower; c) a loan is an unconditional debt to the creditor which has to be repaid at maturity and which is interest-bearing.	
F.5	**Shares and other equity**	
	Consists of financial assets which represent property rights on corporations or quasi-corporations.	
F.6	**Insurance technical reserves**	
	Consists of the technical provisions of insurance corporations and (autonomous and non-autonomous) pension funds against policy holders or beneficiaries.	
F.7	**Other accounts receivable/payable**	
	Consists of financial claims which are created as a counterpart of a financial or a non-financial transaction in cases where there is a timing difference between this transaction and the corresponding payment.	

Institutional sectors

S11 (par. 2.21)	**Non-financial corporations**	
	The sector non-financial corporations consists of institutional units whose distributive and financial transactions are distinct from those of their owners and which are market producers, whose principal activity is the production of goods and non-financial services.	
S12 (par. 2.32)	**Financial corporations**	
	The sector financial corporations consists of all corporations and quasi-corporations principally engaged in financial intermediation (financial intermediaries) and/or in auxiliary financial activities (financial auxiliaries). The assets and liabilities of the financial intermediaries have different characteristics, involving that the funds are transformed or repackaged with respect to maturity, scale, risk and the like in the financial intermediation process.	
S13 (par. 2.68)	**General Government**	
	The sector general government includes all institutional units which are other non-market producers whose output is intended for individual and collective consumption, and mainly financed by compulsory payments made by units belonging to other sectors, and/or all institutional units principally engaged in the redistribution of national income and wealth.	
S14&S15 (par. 2.75)	**Households (S14) and non-profit institutions serving households (S15)**	
	The households sector covers individuals or groups of individuals as consumers and possibly also as entrepreneurs producing market goods and non-financial and financial services (market producers) provided that, in the latter case, the corresponding activities are not those of separate entities treated as quasi-corporations. It also includes individuals as producers of goods and non-financial services for exclusively own final use.	
S2 (par. 2.89)	**Rest of the of the world**	
	The rest of the world is a grouping of units without any characteristic functions and resources; it consists of non-resident units insofar as they are engaged in transactions with resident institutional units, or have other economic links with resident units. Its accounts provide an overall view of the economic relationships linking the national economy with the rest of the world.	

Source: Author based on Eurostat (1996).

3. Kalecki's Identity 1990-2011

As discussed in Section 1 above Kalecki's identity provides an acceptable starting point for the analysis of stock-flow dynamics. In the national accounts it can be examined at the level of *net lending*, which is the balancing item of the financial account in transaction terms (flows). Figure 2 below looks at the net-lending flows for

the 3 main institutional sectors retained in relation (1) for EU27: the private sector, the public sector and the rest of the world. Unconsolidated data are looked at, because they are available over a longer period (a comparison with consolidated data is available for each sector upon request). The figure shows that given the relative stability of the current account balance on goods and services (G&S) with the Rest of the World (dotted line), the private sector surplus (dashed line), mirrors with almost perfect symmetry the General Government deficit (continuous line). One can note that a negative net lending of the Rest of the World (RoW) means net borrowing by the RoW, hence a current account surplus on goods and services for the domestic economy.
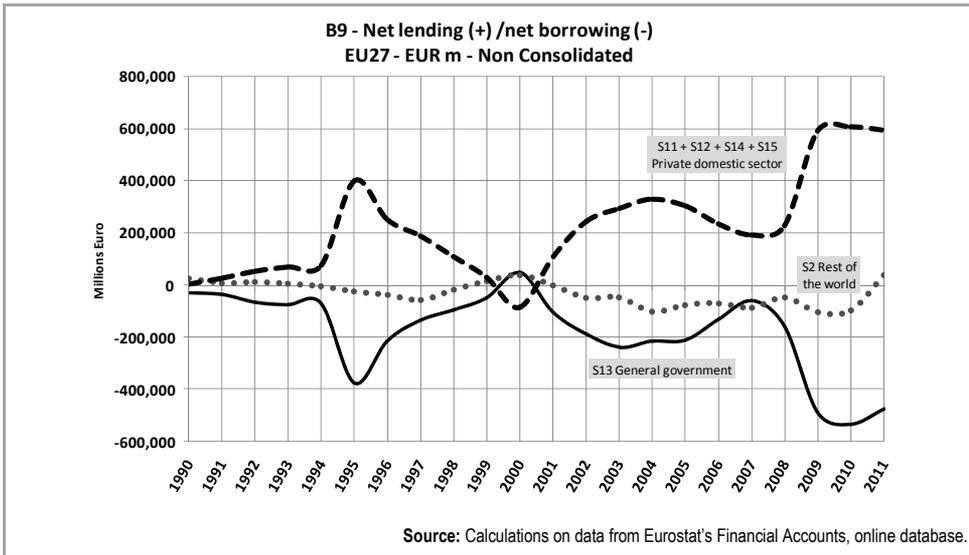
Figure 2 The Kalecki Identity in EU 27 – Unconsolidated Data

Up to the beginning of the crisis (1990-2008), the private sector of EU27 generated a financial surplus between 0 and 400 billions Euros, against a General Government deficit of essentially the same size. In this period the current account on G&S was generally in surplus between 0 and 100 billions Euros. From 2008 to 2011, the private surplus increased to 600 billions Euros, with a parallel increase in the Government deficit, whereas the current account on goods and services turned into a small deficit for the domestic economy. For the whole period 2000-2011, the surplus of the private sector remained on an upward trend. Within the private sector (figure available upon request), the financial corporations were stable between 1990 and 2001, followed by a continuous trend of increasing financial surplus. For the households, there was a continuous decrease in the financial surplus between 1995 and 2007 followed by a strong increase to 300 billions Euros during the crisis. Non-Financial corporations have been more cyclical. Also non-financial corporations increased their net lending with the crisis. The developments for the Euro area were similar.

The accumulation over time of net lending determines the net financial worth, which is the balance of the financial account from the point of view of the stocks. This balance enters the total balance sheet of an economy (or a sector). Table 2 below presents the consolidated financial balance sheet of EU27 for the year 2010. Total financial assets of EU27 amounted to 57,400 billions Euros in 2010, or 560% of GDP, against 58,800 billions Euros of liabilities, hence a negative balance of 1,400 billions, which represents a negative net financial worth (BF90). This is only a component of the net worth of the economy (B90), since in ESA95 the total net worth is the sum of financial and non-financial net worth.

Table 2   The Financial Account of EU 27 for 2010 – EUR Billions

GDP in 2010: 12 260	Total economy (S1)		Private sector (S1-S13)		General government (S13)		Rest of the world (S2)	
	Assets	Liab.	Assets	Liab.	Assets	Liab.	Assets	Liab.
F1 - Monetary gold and SDRs	414		414		0		(26)	
F2 - Currency and deposits	11 129	12 602	10 469	12 300	660	303	6 895	5 214
F21 - Currency	517	514	517	491	1	23	200	110
F22 - Transferable deposits	3 728	4 120	3 437	3 970	291	151	1 759	1 374
F29 - Other deposits	6 883	7 968	6 516	7 839	368	129	5 030	3 730
F3 - Securities other than shares	10 483	12 288	10 087	5 437	396	6 851	10 616	9 188
F4 - Loans	13 660	12 161	13 193	10 609	467	1 552	4 349	6 180
F5 - Shares and other equity	15 615	15 743	13 980	15 737	1 635	6	11 713	11 009
F6 - Insurance technical reserves	3 771	3 911	3 767	3 902	4	8	328	110
F7 - Other receivable/payable	2 349	2 138	1 675	1 667	674	471	828	1 034
Total	**57 420**	**58 843**	**53 585**	**49 652**	**3 835**	**9 190**	**34 703**	**32 735**
BF90 - Net financial assets		**(1 422)**		**3 933**		**(5 355)**		**1 967**

Source: Calculations on data from Eurostat's Financial Accounts, online database.

Eurostat does not provide a consolidation of the private sector, hence the private sector can either be obtained by adding the three components of corporates, banks and households (S11 + S12 + S14&S15) or by subtracting the Government (S13) from the total for the domestic economy (S1). In the first case the total of the private sector plus the government sector exceeds the total domestic economy (S1), whereas in the second case it is different from the sum of its subsectors[5]. In the table above the private sector, calculated by subtraction of the General Government from the total domestic economy, holds combined net financial assets worth 53,600 billion Euros, or 437% of GDP, generating a net financial worth of some 3,900 billions Euros, or 32% of GDP (GDP EU27 in 2012 = 12,260 billions Euros). The General Government holds financial assets for 3,800 billions Euros, or 31% of GDP, against financial liabilities of 9,190 billions Euros (or 75% of GDP). The majority of these are securities (F3) and loans (F4) issued by the General Government, which as a first approximation can be viewed as an indicator of gross public debt in the Maastricht sense. These accounted for 69% of GDP in 2010, i.e. of the order of one sixth of the financial assets held by the private sector (see Photis Lysandrou 2011). For the aggregate of the Rest of the World, covering non-resident units dealing with domestic institutional units (S2), consolidated financial assets represented 283% of GDP and financial liabilities 267% of GDP, implying a net financial worth of 16% of GDP. In

[5] The author is grateful to Sérgio Lagoa on this point.

principle this should exclude assets and liabilities held by branches and foreign subsidiaries of European companies that should be consolidated with their mother companies, but this is not always the case[6]. For instance Eurostat (2009) explicitly mentions that in Ireland and Switzerland subsidiaries of domestic companies are classified in the rest of the world whenever they are registered abroad. One can note that the openness rate in terms of financial assets is about 60%, or some 4 times the usual openness ratio calculated from trade flows in terms of exports and imports of goods and services[7].

4. The Evidence on Asset Price Inflation

When the financial account is normalized by GDP, the time series indicators obtained can be interpreted in terms of "speed differences" between the growth rate of the components of the financial account (the numerator, measuring a stock) and GDP (the denominator, measuring a flow)[8].

      The ratio of total financial assets normalized by GDP is sometimes used as an indicator of financial development. Since its evolution through time gives an indication on the relative speed at which financial stocks and productive revenues (flows) develop, it measures indirectly the "financial rents" accumulated through asset price inflation, particularly if one assumes that quantities in the numerator and the denominator evolve in a parallel way. This assumption can be accepted as a first approximation, since the notion of quantity for a financial asset is not really meaningful and can thus be normalized according to needs. The evolution of the ratio of financial assets to GDP for EU 27 and for the Euro area is shown in the Figure 3 and 4 below.
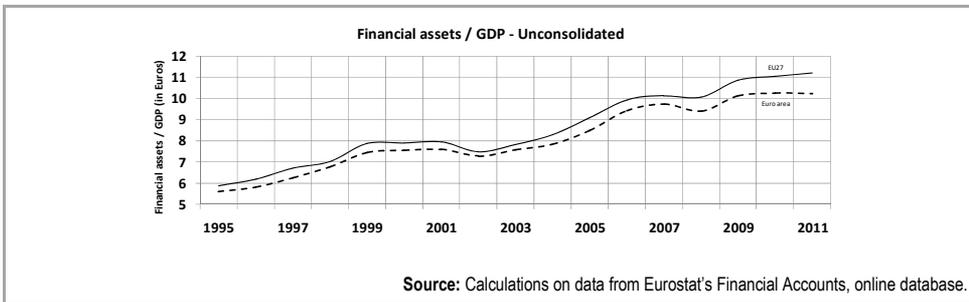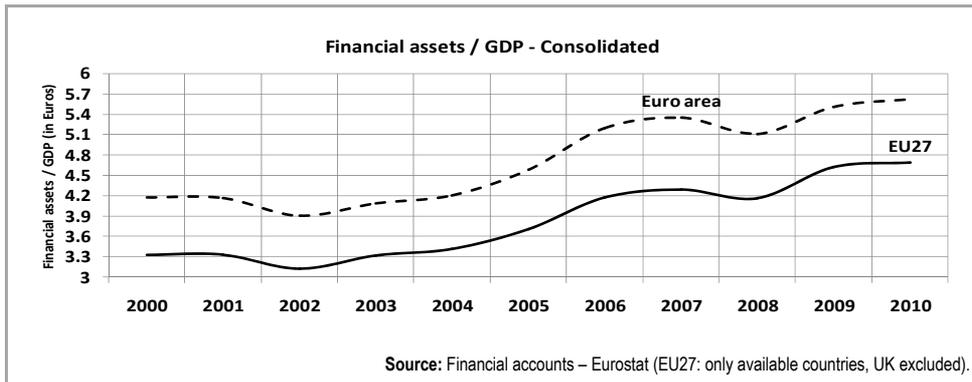

Figure 3 Unconsolidated Data

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[6] The author thanks Domenica Tropeano for raising this issue.
[7] The former is calculated as the ratio of the total financial assets of the rest of the world divided by the financial assets of the domestic economy, the latter is given by the ratio of the sum of exports and imports, divided by two, over GDP.
[8] With obvious notations:

$$r_t = \frac{x_t}{y_t} = \frac{x_0\left(1+g_x\right)^t}{y_0\left(1+g_y\right)^t} = \frac{x_0}{y_0}\left(\frac{1+g_x}{1+g_y}\right)^t = r_0\left(1+g_r\right)^t \;\rightarrow\; 1+g_r = \frac{1+g_x}{1+g_y} \;\rightarrow\; g_r = \frac{1+g_x}{1+g_y}-1 = \frac{g_x-g_y}{1+g_y}$$

Figure 4 Consolidated Data

For Unconsolidated Financial Assets (UFA) in Figure 3 the ratio has increased from 5-6 x GDP in 1995, to about 11 x GDP in 2010, i.e. UFA thus increased 90% more than GDP over 16 years. For consolidated data, shown in Figure 4, the ratio of Financial Assets (FA) to GDP is higher for the Euro Area than for EU27 as the consolidated aggregate EU27 does not include UK[9]. The two indicators have the same trend in the period 2000-2010. Consolidated Financial Assets (FA) grew 30% more than GDP in the Euro Area and 40% more in EU27. As discussed above, this is *prima facie* evidence of asset price inflation (Michel Aglietta 1998; Toporowski 2000, 2010), as, even if one discounts future gains, it is relatively unlikely that the value of accumulated financial assets should grow much faster than GDP, i.e. of the real wealth produced and distributed, over a protracted period of time.

Figure 5 below compares the growth rate of the ratio of Consolidated Financial Assets (CFA) to GDP by country, whereas Figure 6 below shows the value of that ratio for the year 2010. Amongst the high CFA/GDP countries: the "speed difference with GDP" was 3% for Luxembourg (LU), 9% for Ireland (IE), 3% for Germany (DE), 8% for France (FR), and 6% for Italy (IT).

Cross-country consolidated data for 2010/11 in Figure 6 below shows that Luxembourg is clearly an outlier with CFA/GDP at 126 x GDP; Ireland is also very high with 24 x GDP; France and Italy are relatively large economies with relatively low shares of CFA on GDP; UK is not available for consolidated data, but probably close to NL or higher (NL is at 14 x GDP). Germany is at 7 x GDP. Portugal and Spain are relatively high when compared to France and Italy, which, like in Ireland, might be due to a faster inflation of residential property (see below with Figures 8-9).

More direct evidence of asset price inflation can be found in the indicator for the equity prices shown in Figure 7 below, which compares the Dow Jones, to the Dax and the Nikkei. It shows that equity price inflation was mainly at work in EU and US during the 90s, whereas the peak for Nikkei was the year 1989. The growth

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[9] For UFA, UK is available and the ratio of UFA/GDP of EU27 is above the Euro Area. For both the Euro Area and the EU27, this ratio is obviously higher in absolute terms than with consolidated data. This however should not distort the trend, and the indicator has the same profile of that calculated with consolidated data, but it is preferable, as it is available for a longer period.

of DAX and the Dow Jones was extremely fast during the 1990s (x4). On the contrary, in the first decade of the new millennium the stock market continued to grow, but at a lower pace and with wider fluctuations. In US the index is marginally higher in 2011 than what it was in 2000. In Germany 2011 is just below 2000, but meanwhile there was the peak of 2007. Therefore the indication from this figure seems to be that in term of asset price inflation, equity prices were not the main driver in the last decade, contrary to the previous one.
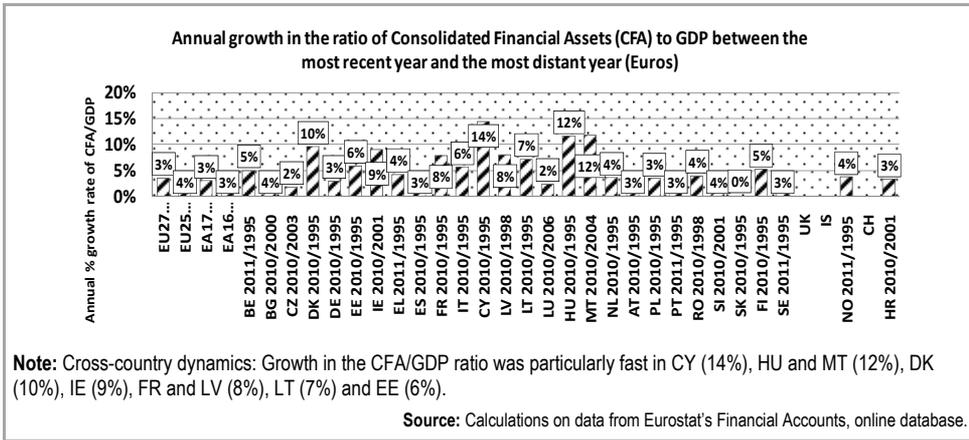

Note: Cross-country dynamics: Growth in the CFA/GDP ratio was particularly fast in CY (14%), HU and MT (12%), DK (10%), IE (9%), FR and LV (8%), LT (7%) and EE (6%).

Source: Calculations on data from Eurostat's Financial Accounts, online database.

Figure 5 Growth of CFA/GDP

Note: Cross-country, last year: Only LU has a higher ratio of CFA to GDP than IE (126, against 24 for IE). NL is at 14; SE at 8; DE, MT, PT, FI at 7, and ES, CY, AT, NO and the EA 6.

Source: Calculations on data from Eurostat's Financial Accounts, online database.
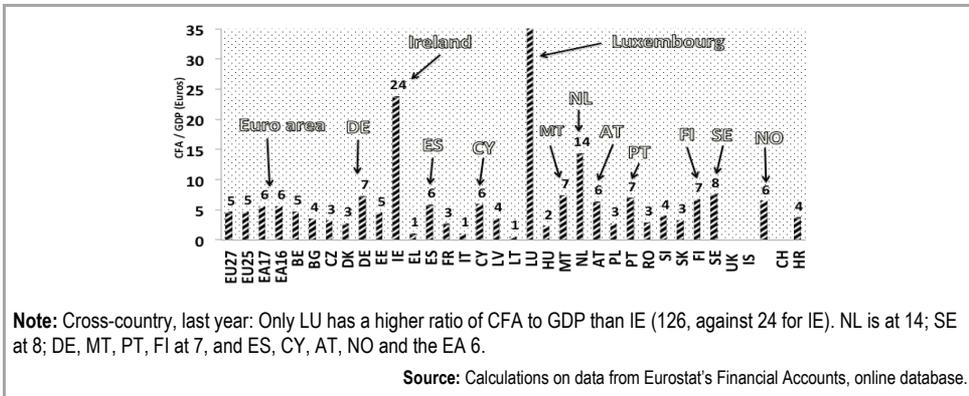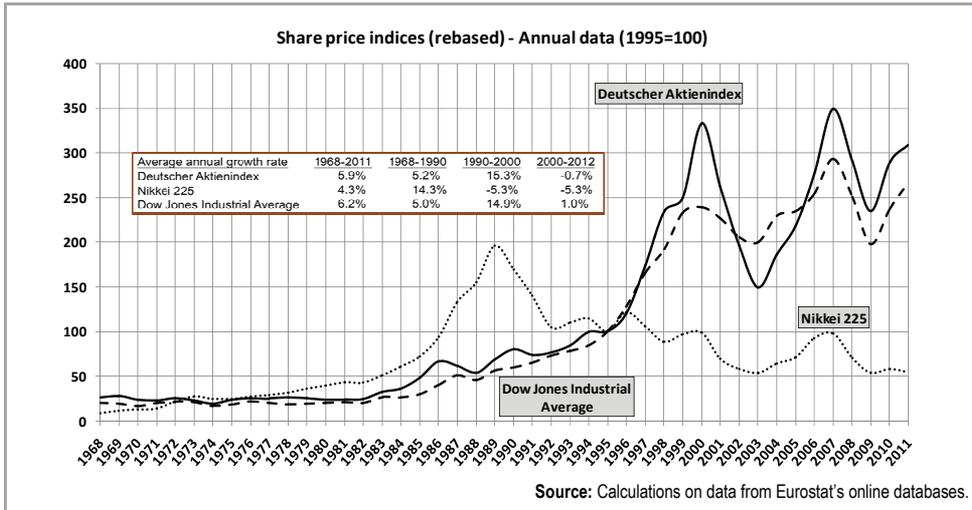
Figure 6 CFA/ GDP - Last Year

Figure 7 Share Price Indexes

The picture was different for residential prices, which have been rising fast in many European countries since 1995. Residential property is not included in the financial account (it appears in the real capital account). When financed by debt, it is an important factor of financial asset inflation.[10] Shares and residential property are used as collateral for loans and therefore their prices influence the growth of credit and debt aggregates, which can themselves retroact on asset price inflation. As shown in Figure 8 below, between 1995-2009 in the Euro Area residential prices (new and existing dwellings) increased by 79%, while the GDP deflator, measuring inflation for goods and services produced, increased by 29%. In the same period, the increase in residential prices for new dwellings was respectively 0%, 177% and 207% in DE, ES and IE (Figure 9).
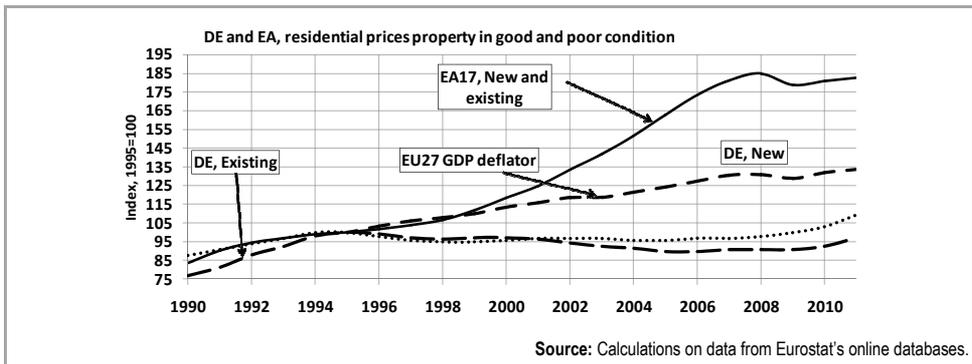

Figure 8 Germany and the Euro Area. Residential Price Inflation (1995=100)

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[10] The author is grateful to an anonymous referee for pointing to this issue.
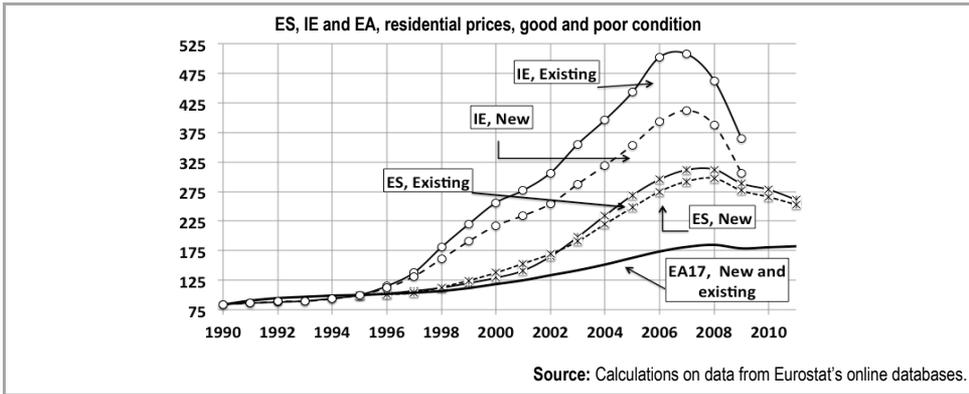
Figure 9 Spain, Ireland and the Euro Area. Residential Price Inflation (1995=100)

The evolution of debt is examined below through debt securities data published by the European Central Bank for the Euro Area. Between 1990-2010 total debt issues by the domestic economy (Figure 10) increased much faster than GDP, particularly for monetary financial institutions (MFI), corresponding to the consolidation of ESA95 sectors S121 and S122, which increased from 861 billion Euros in 1990 to 7,500 billion Euros in 2010, after having peaked at 10,058 billion Euros in 2007. Instead, issues by the General Government (GG) grew much less spectacularly: whereas they were at the same level as those of the MFI up to 1998, when they reached 1,280 billions Euros, they grew much less in the following years, up to the crisis, when they started to accelerate, in parallel to a relative decline of issues by MFI. Outstanding debt of the General Government remained continuously slightly above that of banks, except for the year 2008. Compared to non-financial corporates, corresponding to ESA95 S10 (line with squares in Figure 10), GG issues were below or at a similar level in terms of GDP up to the crisis, then they partially substituted for the deleveraging of corporates and MFIs. Non-Monetary Financial Institutions, (NMFI, corresponding to ESA95 S123-S125) have the lowest level of debt issuance.

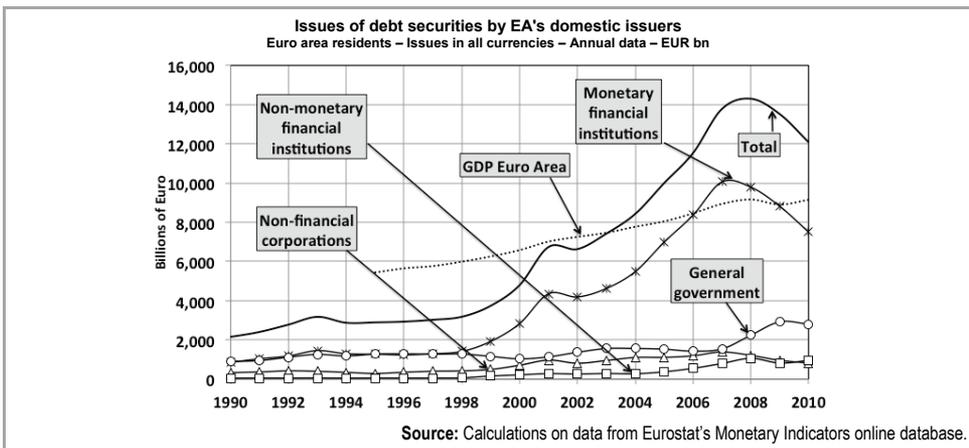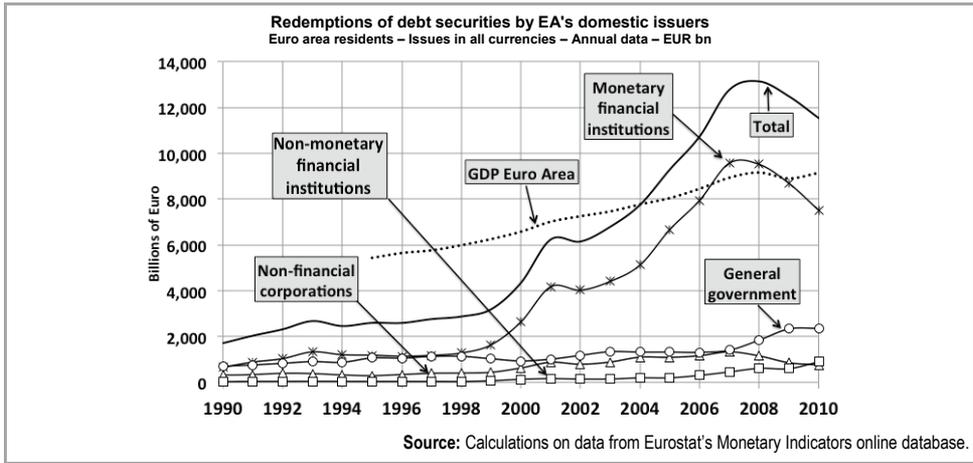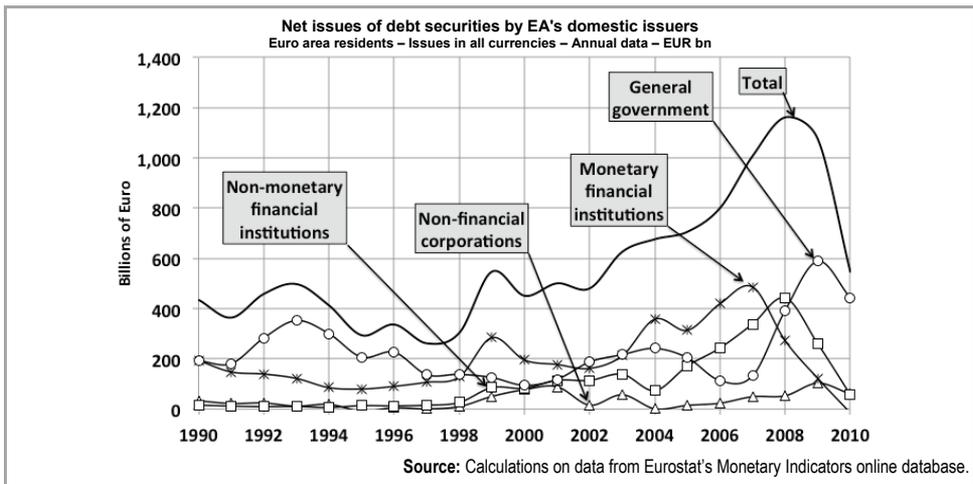**Figure 10** Euro Area Security Issues

Figure 11   Euro Area Redemptions of Securities

For redemptions (Figure 11 above) the developments were similar, suggesting that most debt issued in the form of securities is rolled over from one year to the other. Not all however, as redemption are generally lower than issues, indicating increasing net debt.

Figure 12   Euro Area Net Issues of Securities
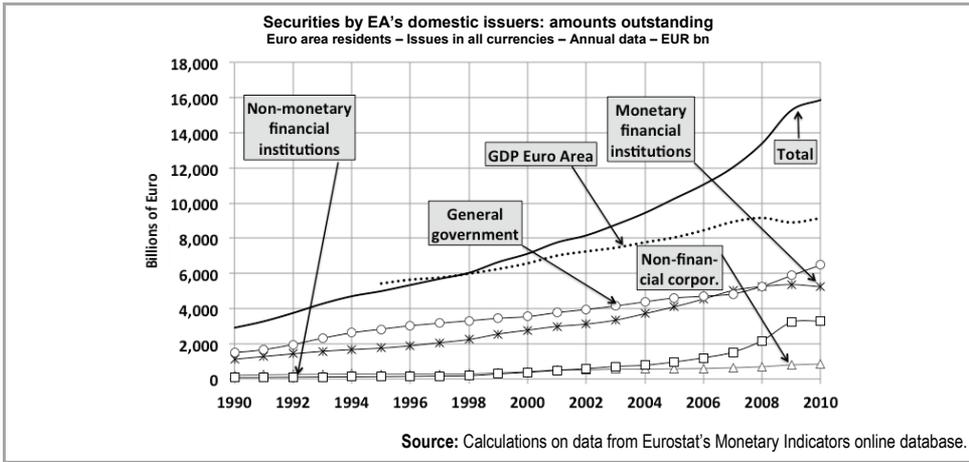
Figure 13 Euro Area Amounts of Securities Outstanding

Indeed Figure 12 above shows that total net issues of the Euro Area were 400 billions Euros per year in the 1990s, and tripled to 1,200 billions in 2009, to then halve in 2010 to 600 billions Euros. In terms of amounts outstanding (Figure 13 on the right above), starting from 1997-1998 domestic debt outstanding exceeded GDP. Debt of Non-Financial Monetary Institutions (S123, S124, S125) started exceeding that of Non-Financial Corporations (S10) from 2003-4 and increased markedly after 2006.

5. Developments by Sector and Product in the Euro Area

5.1 A Global View on the Domestic Economy (S1)

Table 3 and 4 below show the size of the main assets and liabilities per sector for the whole Euro Area in 2010 in % of GDP (GDP of the Euro Area was 9,148 billions Euros in 2010). For the total of the domestic economy (S1) Financial Assets represented 560% of GDP in 2010 (Table 3). Shares and other equity (F5) were the largest item, corresponding to 151% of GDP, held mainly by the financial sector (S12) and the Rest of the World (RoW).

Table 3 Main Assets Euro Area (2010 - % of GDP)

	S_1	S_{11}	S_{12}	S_{13}	$S_{14\&15}$	RoW
FA	563	104	429	34	200	348
F_5	151	47	87	14	48	118
F_4	135	15	167	4	1	40
$F_{1\&2}$	115	21	57	6	71	71
F_3	105	3	108	4	15	108
F_6	37	2	0	0	61	4

Source: Calculations on data from Eurostat's Financial Accounts, online database.

Loans (F4) represented 135% of GDP, almost entirely concentrated in the assets of banks, which are a subsector of S12, and the RoW, which includes the foreign banking sector. Gold, currency and deposits (F1+F2) represented 116% of GDP, being mainly held by households (S14+S15), RoW, financial corporations and non-financial corporations (S10). Securities (F3) represented 105% of GDP; mainly held by financial corporations and RoW. Insurance technical reserves (F6): represented 37% of GDP in the consolidated domestic economy; held by households for an amount of 62% of GDP.

Table 4 Main Liabilities Euro Area (2010 - % of GDP)

	S$_1$	S$_{11}$	S$_{12}$	S$_{13}$	S$_{14\&15}$	RoW
FL	572	201	416	92	68	334
F$_5$	151	104	94	0	0	111
F$_{1\&2}$	126	0	162	3	0	54
F$_3$	123	10	70	69	0	94
F$_4$	115	69	20	16	63	64
F$_6$	38	4	61	0	0	1

Liabilities are shown in Table 4 above. Financial liabilities represented 572% of GDP. Shares and equity (F5) represented 151% of GDP, financing mainly non-financial corporates, financial corporates and RoW. Gold, currency and money (F1+F2) represented 126% of GDP, financing mainly banks and RoW. Securities (F3) represented 124% of GDP, financing financial corporations (S12), Government and the RoW mainly. Loans (F4) represented 115% of GDP, they are due essentially by corporates and households. Insurance technical reserves represented (F6) represented 38% of GDP, being a liability for the financial corporates (for 61% of GDP).

Table 5 below presents the dynamics by product and sector in the period 2000-10, during which total FA of the Euro Area domestic economy grew 3% faster than GDP. The latter grew at 3.3% per year in nominal terms, hence financial assets grew by 6.5% per year on average in absolute terms. Currency and deposits (F2) grew 4% faster than GDP. Securities (F3) grew 5% faster than GDP.

Table 5 EA: Average Annual Growth Rate of Financial Assets and Liabilities by Sector for the Period 2000-2010

Annual growth 2000-2010 % per annum	S1		S11		S12		S121_S122		S121		S122		S12-(S121+S122)		S13		S14_S15		S2	
	A	L	A	L	A	L	A	L	A	L	A	L	A	L	A	L	A	L	A	L
BF90 Net financial assets	-0.1%		0.2%		0.5%		0.4%		0.0%		-0.1%		0.7%		0.1%		-2.3%		0.1%	
Total assets/liabilities	3%	3%	1%	1%	4%	4%	3%	3%	9%	8%	6%	6%	5%	4%	2%	2%	0%	3%	8%	8%
F1 Monetary gold and SDRs	9%				9%				8%				10%						12%	
F2 Currency and deposits	4%	3%	4%		6%	3%	6%	4%	9%	10%	7%	5%	5%		0%	-1%	2%		6%	7%
F21 Currency	4%	4%	1%		0%	4%	0%	2%			5%		0%	10%	0%	0%	4%		27%	0%
F22 Transferable deposits	7%	8%	4%		11%	6%	13%	7%	3%	7%	10%	8%	5%	1%	3%	10%	5%		12%	9%
F29 Other deposits	3%	2%	5%		5%	2%	4%	3%	10%	29%	6%	5%	5%	-2%	-1%	-7%	0%		4%	6%
F3 Secur. oth. than shares	5%	5%	-7%	4%	5%	5%	5%	3%	9%	7%	9%	9%	5%	12%	13%	2%	-1%		9%	11%
F33 Sec. o. t. shares excl. der.	4%	4%	-7%	4%	4%	4%	5%	2%	8%		8%	8%	4%	11%	13%	2%	-1%		8%	10%
F331 Short-term – excl. der.	8%	6%	2%	-5%	7%	4%	6%	3%	4%		9%	9%	9%	7%	0%	7%	-8%		9%	17%
F332 Long-term – excl. der.	4%	4%	4%	6%	4%	4%	4%	2%	9%		8%	8%	4%	12%	13%	2%	-1%		8%	9%
F34 Financial derivatives	18%	20%	-7%	7%	18%	18%	21%	21%	0%				17%	15%	17%	15%			20%	18%
F4 Loans	3%	3%	7%	2%	3%	7%	3%	4%	3%		5%	8%	5%	8%	0%	2%	-1%	3%	8%	9%
F41 Short-term – Loans	5%	3%	7%	-1%	3%	9%	2%	0%	12%		3%	0%	5%	9%	4%	15%	0%	7%	9%	9%
F42 Long-term – Loans	3%	3%	7%	4%	4%	6%	3%	5%	-7%		6%	10%	5%	7%	1%	0%	-2%	3%	9%	10%
F5 Shares and other equity	2%	3%	0%	0%	4%	3%	-1%	-2%	7%	4%	2%	3%	5%	4%	2%		-3%		8%	6%
F6 Insurance tech. reserves	2%	2%	1%		12%	3%			0%				12%	3%			3%		15%	14%
F7 Other receivable/payable	0%	0%	0%	0%	3%	2%	1%	-1%	0%	0%	7%	10%	6%	6%	1%	1%	2%	2%	5%	4%

Financial derivatives (F34) were the component with the highest growth rate, but they are still accounting for "only" 10% on the total balance sheet at the end of the period. Loans (F4) grew 3% faster than GDP. Shares (F5) grew 2% faster than GDP. Insurance technical reserves (F6) grew 2% faster than GDP. Total Liabilities of the Euro Area domestic economy grew 3% faster than GDP. Currency and deposits (F2) grew 3% faster than GDP, slightly less than the corresponding assets, but their more monetary components (F21 and F22), grew faster than the corresponding assets (4% and 8% respectively). Securities (F3) grew 5% faster than GDP. Loans (F4) grew 3% faster than GDP[11]. Shares and equity (F5) grew 3% faster than GDP. Insurance Technical Reserves (F6) grew 2% faster than GDP. The sector with the fastest growth of total financial assets was the Rest of the World (8% faster than GDP), followed by non-monetary financial institutions (S12-S121-S122), growing at 5% faster, financial institutions (S12), the Government (S13), non-financial corporates (S11) and households (S14&15). These results are discussed in more detail in the following paragraphs for each sector.

5.2 Non-Financial Corporations (S10)

Levels: Non-financial corporations (S11, NFC) have typically a negative net financial position (-97% of EA's GDP in 2010).

Table 6 Non-Financial Corporations (S10) - Financial Account – 2010

2010	S11 - EUR bn			S11 - % of GDP		
	Assets	Liabilities	Net	Assets	Liabilities	Net
BF90 Net financial assets		8 871	8 871		-97%	-97%
F_AS Financial assets	9 528		9 528	104%		104%
F_LI Financial liabilities		18 399	18 399		201%	201%
F1 Monetary gold and special drawing rights (SDRs)	-		-	0%		0%
F2 Currency and deposits	1 953	28	1 924	21%	0%	21%
F21 Currency	107	-	107	1%	0%	1%
F22 Transferable deposits	1 081	28	1 053	12%	0%	12%
F29 Other deposits	764	-	764	8%	0%	8%
F3 Securities other than shares	302	892	590	3%	10%	-6%
F33 Securities other than shares, excl. der.	282	855	572	3%	9%	-6%
F331 Short-term – excl. derivatives	67	76	9	1%	1%	0%
F332 Long-term - excl. derivatives	215	779	564	2%	9%	-6%
F34 Financial derivatives	20	37	18	0%	0%	0%
F4 Loans	1 372	6 334	4 962	15%	69%	-54%
F41 Short-term - Loans	768	1 709	941	8%	19%	-10%
F42 Long-term - Loans	604	4 625	4 021	7%	51%	-44%
F5 Shares and other equity	4 339	9 487	5 148	47%	104%	-56%
F6 Insurance technical reserves	170	336	165	2%	4%	-2%
F7 Other accounts receivable / payable	1 391	1 321	70	15%	14%	1%

Source: Calculations on data from Eurostat's Financial Accounts, online database.

In their consolidated balance sheet the latter is compensated by net fixed assets, which however are not included in the financial account but are reported in the capital account[12]. For corporates, net financing is essentially coming from loans

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[11] The definitions relating to F2 and their relations with the more usual monetary aggregates (M0, M1, M2, M3) are discussed in an Annex available upon request.

[12] In an Annex available upon request, data are provided on the relative magnitude of the non-financial and financial assets for some countries.

(50%) and from equity (50%). Non-financial corporates' total financial assets represented 104% of EA's GDP and were composed mainly of shares, but also loans and other receivables. It is noteworthy that NFC keep liquid assets (gold, currency and deposits) for some 21% of GDP. Financial liabilities of non-financial corporates are much higher than financial assets, representing about 200% of GDP. The main liability is shares (F5), representing about 104% of GDP, which correspond to the net fixed assets of non-financial corporates. Long-term loans (F42) represented 51%; short term loans (F41) 19%.

Dynamics: As shown in Table 5, in dynamic terms, total assets of S11 have been growing "only" 1% faster than GDP. The fastest growth was that of loans (F4), which have been growing 7% faster than GDP, reaching 15% of GDP in 2010. Other deposits (F29) had a fast expansion too (5%). Like total assets, total liabilities of S11 have been growing 1% faster than GDP.

5.3 Financial Corporations (S12)

Levels: The Financial Assets of the consolidated Financial Sector of the Euro Area (S12) amounted to 39,319 billions Euros in 2010, representing 429% of the area's GDP, or 77% of the financial assets of the total domestic economy. As shown in Table 7 below, the main assets held were loans (F4), which amounted to 15,304 billions Euros or 167% of GDP.

Total financial liabilities of S12 were at 38,144 billions euros, or 416% of GDP, i.e. allowed for a net financial worth of 1,176 billions Euros (6% of GDP). The main liabilities were currency and deposits (F2), with 14,878 billions Euros or 162% of GDP. The net negative position of 10,047 billions Euros in terms of currency and deposits (-110% of GDP) and the net positive position of 13,483 billions of Euros (147% of GDP) in terms of loans (F4) and of 3,523 billions Euros (38% of GDP) in terms of securities other than shares (F3), reflects the role of financial institutions in credit and money creation and destruction. Their negative net position of 5,535 billions euros (-60% of GDP) for technical reserves, reflects the role of the insurance industry in collecting liquidity and investing it for the coverage of the risks taken.

When the S12 aggregate is broken down between monetary and non-monetary financial institutions (respectively MFI and NMFI), the role of the consolidated banking sector in money and credit creation comes out more neatly. The latter includes the central bank and the rest of the monetary financial institutions (presented under the heading S121_S122), which should in principle consolidate internal flows between S121 and S122. This aggregate shows a net negative balance of -114% of GDP for currency and deposits, matching exactly the positive balance for loans (F4). This corresponds also by and large to the size of M3 (cf. Annex, available upon request).

Reflecting an *ex post* balance, it is consistent with both the conventional approach linked to the quantitative theory of money of Milton Friedman and descending from the currency school, according to which deposits make loans, which is presented in most economic textbooks, and the alternative money endogeneity approach, descending from the banking school arguments, according to which loans make deposits (Basil Moore 1979, 1989; Lavoie 1984; Eisner 1995; Graziani 2003).

Table 7 Financial Corporations (S12) - Financial Account - Year 2010

2010	S12 - EUR bn			S121_S122 - EUR bn			S12-(S121+S122) - EUR bn		
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
BF90 Net financial assets		*1 176*	*1 176*		*650*	*650*		*525*	*525*
F_AS Financial assets	*39 319*		*39 319*	*19 824*		*19 824*	*19 495*		*19 495*
F_LI Financial liabilities		*38 144*	*38 144*		*19 174*	*19 174*		*18 970*	*18 970*
F1 Monetary gold and SDRs	*388*		*388*	*294*		*294*	*94*		*94*
F2 Currency and deposits	*4 831*	*14 878*	*10 047*	*2 875*	*13 278*	*10 403*	*1 956*	*1 601*	*355*
F21 Currency	4	668	664	6	522	516	2	147	148
F22 Transferable deposits	1 162	4 881	3 719	956	4 579	3 623	206	302	96
F29 Other deposits	3 666	9 329	5 664	1 913	8 177	6 264	1 752	1 152	600
F3 Securities other than shares	*9 887*	*6 364*	*3 523*	*4 574*	*3 869*	*705*	*5 313*	*2 496*	*2 817*
F33 Securities o. t. shares, ex. der.	9 009	5 534	3 475	4 219	3 489	730	4 791	2 046	2 745
F331 Short-term excl. derivatives	747	378	369	358	266	93	389	112	277
F332 Long-term excl. derivatives	8 262	5 156	3 106	3 860	3 223	637	4 402	1 934	2 468
F34 Financial derivatives	878	830	48	356	380	25	522	450	72
F4 Loans	*15 304*	*1 821*	*13 483*	*10 683*	*252*	*10 431*	*4 622*	*1 569*	*3 053*
F41 Short-term – Loans	3 393	783	2 610	2 505	7	2 498	888	776	112
F42 Long-term – Loans	11 911	1 038	10 873	8 178	244	7 933	3 734	793	2 940
F5 Shares and other equity	*7 991*	*8 602*	*611*	*1 033*	*1 372*	*339*	*6 958*	*7 231*	*272*
F6 Insurance technical reserves	*28*	*5 564*	*5 535*	*1*	*67*	*66*	*27*	*5 497*	*5 470*
F7 Other receivable / payable	*889*	*914*	*25*	*364*	*337*	*27*	*525*	*577*	*52*

2010	S12 - % of GDP			S121_S122 - % of GDP			S12-(S121+S122) - % GDP		
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
BF90 Net financial assets		*13%*	*13%*		*7%*	*7%*		*6%*	*6%*
F_AS Financial assets	*429%*		*429%*	*216%*		*216%*	*213%*		*213%*
F_LI Financial liabilities		*416%*	*416%*		*209%*	*209%*		*207%*	*207%*
F1 Monetary gold and SDRs	*4%*		*4%*	*3%*		*3%*	*1%*		*1%*
F2 Currency and deposits	*53%*	*162%*	*-110%*	*31%*	*145%*	*-114%*	*21%*	*18%*	*4%*
F21 Currency	0%	7%	-7%	0%	6%	-6%	0%	2%	-2%
F22 Transferable deposits	13%	53%	-41%	10%	50%	-40%	2%	3%	-1%
F29 Other deposits	40%	102%	-62%	21%	89%	-68%	19%	13%	7%
F3 Securities other than shares	*108%*	*70%*	*38%*	*50%*	*42%*	*8%*	*58%*	*27%*	*31%*
F33 Securities o. t. shares, ex. der.	98%	60%	38%	46%	38%	8%	52%	22%	30%
F331 Short-term excl. derivatives	8%	4%	4%	4%	3%	1%	4%	1%	3%
F332 Long-term excl. derivatives	90%	56%	34%	42%	35%	7%	48%	21%	27%
F34 Financial derivatives	10%	9%	1%	4%	4%	0%	6%	5%	1%
F4 Loans	*167%*	*20%*	*147%*	*117%*	*3%*	*114%*	*50%*	*17%*	*33%*
F41 Short-term – Loans	37%	9%	29%	27%	0%	27%	10%	8%	1%
F42 Long-term – Loans	130%	11%	119%	89%	3%	87%	41%	9%	32%
F5 Shares and other equity	*87%*	*94%*	*-7%*	*11%*	*15%*	*-4%*	*76%*	*79%*	*-3%*
F6 Insurance technical reserves	*0%*	*61%*	*-60%*	*0%*	*1%*	*-1%*	*0%*	*60%*	*-60%*
F7 Other receivable / payable	*10%*	*10%*	*0%*	*4%*	*4%*	*0%*	*6%*	*6%*	*-1%*

Source: Calculations on data from Eurostat's Financial Accounts, online database.

In the year 2010, the consolidated banking sector represented approximately half of the consolidated financial sector in terms of total assets and liabilities: 219% of GDP. Loans represented 116%, against 167% for S12. On the liabilities side currency and deposits were at 145% of GDP, illustrating the unique role of banks as producers of liquid liabilities used as means of payments by the rest of the economy. Equity represented 15% of GDP against 94% for S12, i.e. much less than 50% of S12. This should in principle respect the 8% of Basel I-II criteria and it is currently debated whether it is sufficient or not in term of banking regulation (for a thorough critical view on Basel III criteria see Rainer Masera 2012 and 2013; and for a critique of the capital standards from a monetary circuit point of view see Vallageas 2013). The aggregate for Non-Monetary Financial Institutions (NMFI) was calculated in Table 7 above by subtraction of S121_S122 from S12. The consolidated assets of NMFI represent the other half of the financial account of S12 or 209% of GDP. Shares and equity (F5) was the largest item on the asset side, accounting for 86% of

GDP followed by securities (58%) and loans (50%). On the liability side, insurance technical reserves (F6) represented 60% of GDP, loans (F4) 33% and securities (F3): 31%. The net positions obtained show that by and large the sector finances itself by technical reserves, for some 60% of GDP, i.e. absorbs liquid savings from households and enterprises, which are lent or invested in securities more or less in equal proportions.

Dynamics: As shown in Figures 14 and 15 below, the total financial assets of S12 almost doubled in Euro terms between 2000 and 2010, from 20,000 billion Euros to close to 40,000 billion Euros.
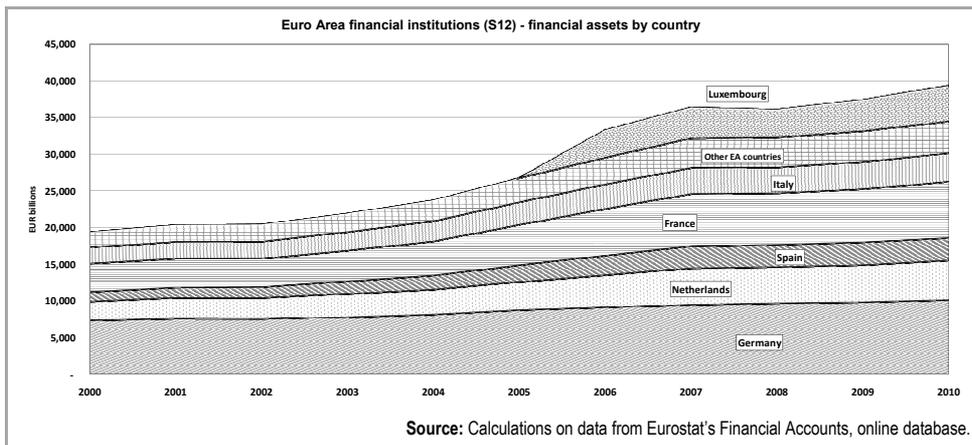

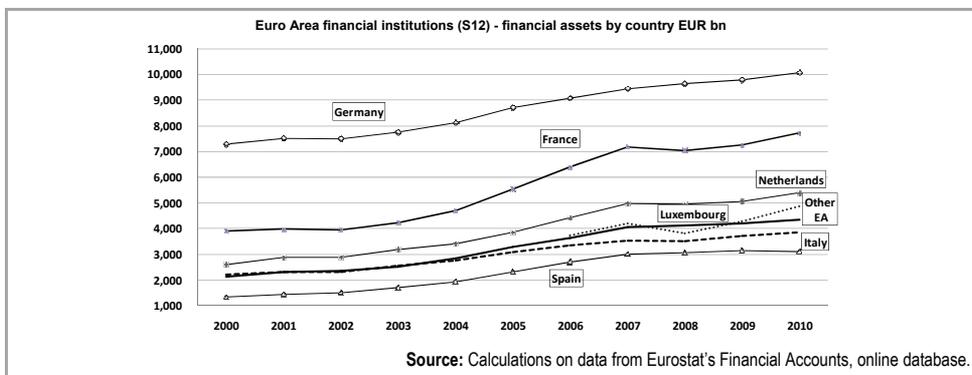**Figure 14**   EA S12 FA Cumulated by Country

Figure 15   EA S12 Financial Assets by Country

As it is visible in the figure, part of the increase, but not all, is due to the fact that Luxembourg only provides data starting from 2005. Germany represents some 25% of the total of the Euro area. Its total financial assets have remained rather stable or slightly increasing in absolute terms, but have been decreasing in terms of share of the total. France's financial assets increased fast, doubling from 3,900 billion Euros in 2000 to 7,700 billion Euros in 2010. The total financial assets of the Netherlands

exceed those of Italy: they also almost doubled from 2,600 billion Euros to 5,400 billion Euros during the period. Luxembourg's financial assets exceed those of Italy or Spain, reflecting its role as European financial center. Italy exceeds Spain, having grown from 2,000 billion Euros in 2000 to 3,800 billion Euros in 2010, but Spain catches up quickly. It went from 1,300 billion Euros in 2000 to 3,000 billion Euros in 2010. For the rest of the Euro Area, which includes New Member States, there was a fast increase in total assets. Looking at the breakdown between monetary and non-monetary institutions in Figures 16-20, their gross assets and liabilities have been growing fast, particularly during the period 2002-2007, when NMFI institutions total assets grew faster: from 1.3% of GDP to 2% of GDP (Figure 17), against an increase from 1.6% to 2% for MFI (Figure 16), probably under the effect of inflation in equity prices.
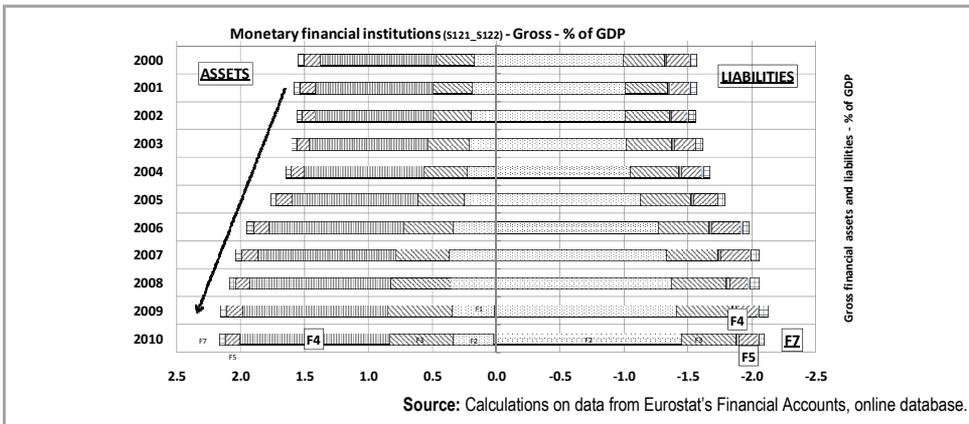

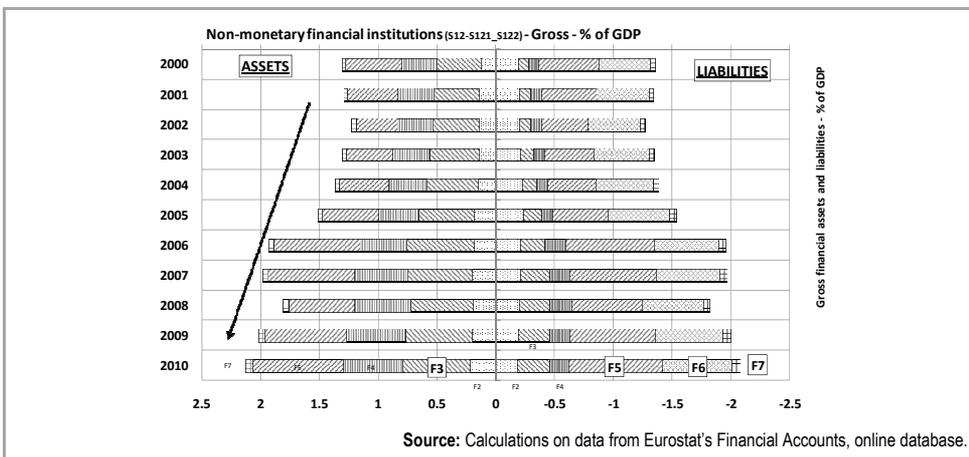**Figure 16** EA MFI: Gross Financial Assets and Liabilities, % of GDP

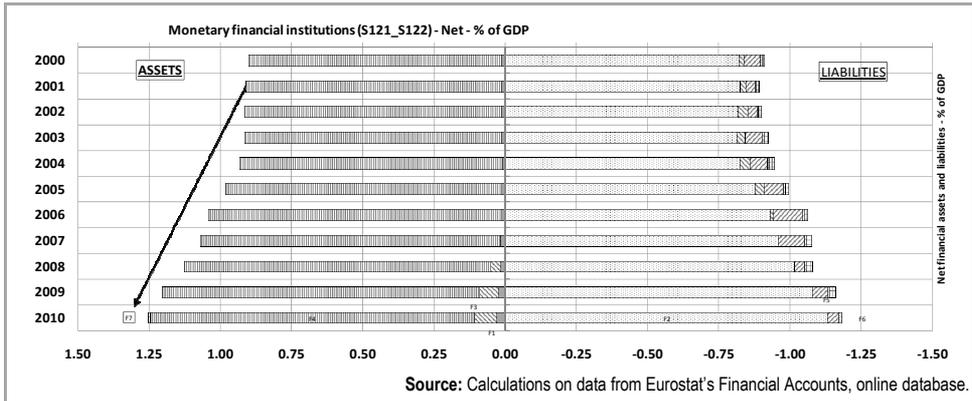**Figure 17** EA-NMFI: Gross Financial Assets and Liabilities, % of GDP

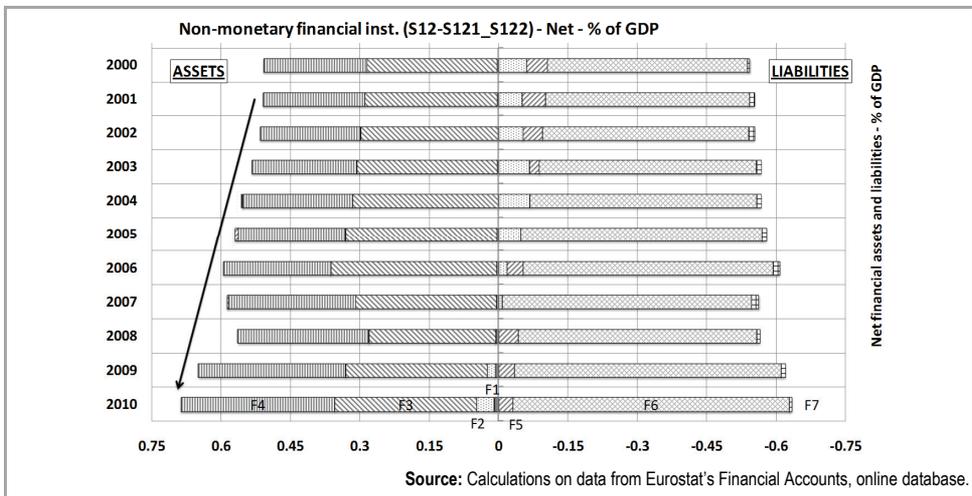**Figure 18** EA MFI: Net Financial Assets and Liabilities, % of GDP

Figure 19 EA NMFI: Net Financial Assets and Liabilities, % of GDP

When net positions are considered for each type of financial product (Figures 18 and 19), the specific activities of the two groups of financial institutions appear more clearly: MFI essentially have loans in their assets and currency and deposits and equity in their liabilities. Here the causality is assumed to go from loans to deposits in the banking school interpretation retained in the approach of the monetary circuit, whereas the in theory of emission, more focussed on equilibrium positions in a closed system, a more symmetrical role of loans and deposits is retained (Claude Gnos 2006). Both approaches bring *de facto* to the same policy conclusions, the equilibrium assumptions of the theory of emission being more adapted for the study of the international payment system (Schmitt 1975a, b; Alvaro Cencini 2008). NMFI collect instead essentially liquid savings already created and invest them essentially in bonds, loans and liquid assets, thus working more under the traditional type of causality from savings to investment. Both monetary and non-monetary institutions

had a continuous expansion of their net financial positions in excess of GDP, of the order of 35% cumulative from 2000 to 2010: from 51% to 69% for MFI and from 90% to 125% for NMFI. In terms of the breakdown by sub-sectors and products, Table 8 below presents the average annual rates of growth of the ratios of financial assets to GDP.

Table 8 EA: Average Annual Growth Rate of Financial Assets and Liabilities by Financial Sub-Sector for the Period 2000-2010

Annual growth 2000-2010 % per annum	S12		S121_S122		S121		S122		S12-(S121+S122)		S123		S124		S125	
	A	L	A	L	A	L	A	L	A	L	A	L	A	L	A	L
BF90 Net financial assets	0.5%		0.4%		0.0%		-0.1%		0.6%		0.6%		-0.3%		0.6%	
Total Financial assets/Liabilities	4%	4%	3%	3%	9%	8%	6%	6%	5%	4%	9%	9%	6%	6%	3%	3%
F1 Monetary gold and SDRs	9%		9%		8%				10%							
F2 Currency and deposits	6%	3%	6%	4%	9%	10%	7%	5%	5%	-1%	17%	0%	21%		2%	
F21 Currency		4%	0%	2%		5%	0%		0%	10%						
F22 Transferable deposits	11%	6%	13%	7%	3%	7%	10%	8%	5%	1%	11%		2%		4%	
F29 Other deposits	5%	2%	4%	3%	10%	29%	6%	5%	5%	-2%	19%	0%	40%		2%	
F3 Securities other than shares	5%	5%	5%	3%	9%	7%	9%	9%	5%	12%	8%	17%	2%	7%	5%	20%
F33 Secur. o. t. shares excl. der.	4%	4%	5%	2%	8%	0%	8%	8%	4%	11%	7%	17%	2%	7%	5%	12%
F331 Short-term - excl. der.	7%	4%	6%	3%	4%		9%	6%	9%	7%	10%	23%	0%			
F332 Long-term - excl.der.	4%	4%	4%	2%	9%		8%	8%	4%	12%	7%	17%	0%	4%	5%	12%
F34 Financial derivatives	18%	18%	21%	21%			17%	15%	17%	15%	18%					
F4 Loans	3%	7%	3%	4%	3%		5%	8%	5%	8%	11%	9%	15%	25%	0%	5%
F41 Short-term - Loans	3%	9%	2%		12%		3%	0%	5%	9%	6%	6%		27%	1%	5%
F42 Long-term - Loans	4%	6%	3%	5%	-7%		6%	10%	5%	7%	13%	11%	7%	12%	-1%	6%
F5 Shares and other equity	4%	3%	-1%	-2%	7%	4%	2%	3%	5%	4%	8%	7%	0%	-4%	2%	-7%
F6 Insurance technical reserves	12%	3%		0%				0%	12%	3%					21%	4%
F7 Other receivable/payable	3%	2%	1%	-1%	0%	0%	7%	10%	6%	6%	8%	10%	7%	0%	2%	0%

Source: Calculations on data from Eurostat's Financial Accounts, online database.

From 2000 to 2010 total financial assets and liabilities of financial institutions grew 4% faster than GDP, with a faster expansion of non-monetary financial institutions, particularly the other financial intermediaries except insurance corporations and pension funds (S123), which include financial intermediaries engaged in long-term financing such as leasing, personal or commerce finance, factoring, dealers of derivatives and securities etc. (Annex available upon request.) These have been growing 9% faster than GDP, ending up with total assets equivalent to 150% of GDP, and of financial auxiliaries (S124), which includes insurance brokers, loans and securities brokers, arrangers of swaps, derivatives etc. The latter have been growing at 6%, ending with a level of assets of 7% of GDP. On the contrary insurance corporations and pension funds (S125) have been growing "only" 3% faster than GDP to reach 71% of GDP in 2010. Financial assets of monetary institutions (S121_S122) have been growing 3% faster than GDP, but their two more monetary components, taken separately, grew much faster, respectively 9% for S121 and 6% for S122, implying logically either a fast development of positions between the two sectors that have disappeared in the consolidation, or some problem with the consolidation[13]. In terms of products, for all subsectors, the fastest growth on the assets and liabilities sides was that of financial derivatives (F34), which for assets and for S12 exceeded that of GDP by 18%, reaching a level of some 10% of GDP in 2010. Transferable deposits (F22), which have been also growing much faster than GDP (11%), account for a large portion of total assets (54% of GDP in 2010). Total

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[13] The S121_122 aggregate was recently withdrawn from the Eurostat website. The original data was downloaded from the website of Eurostat in the period April-August 2012. The article was closed in February 2013.

securities other than shares (F3) have also been growing faster than GDP (5%), reaching 76% of GDP in 2010. On the liability side, total liabilities grew 4% faster than GDP. Financial derivatives (F34): 18% faster. Loans (F4): 7% faster.

5.4 General Government (S13)

The net assets of General Government (GG) are negative by some 58% of GDP in 2010. This is the balance of positive holdings of shares equal to 15% of GDP and net liabilities of -66% for securities and -11% for loans (hence debt is of the order of 77%).

Table 9 General Government (S13) - Financial Account - Year 2010

2010	S13 - EUR bn			S13 - % of GDP		
	Assets	Liabilities	Net	Assets	Liabilities	Net
BF90 Net financial assets		*5 274*	*5 274*		*-58%*	*-58%*
F_AS Financial assets	*3 153*		*3 153*	*34%*		*34%*
F_LI Financial liabilities		*8 426*	*8 426*		*92%*	*92%*
F1 Monetary gold and SDRs	*-*		*-*	*0%*		*0%*
F2 Currency and deposits	*572*	*293*	*279*	*6%*	*3%*	*3%*
F21 Currency	1	23	23	0%	0%	0%
F22 Transferable deposits	237	149	87	3%	2%	1%
F29 Other deposits	335	121	214	4%	1%	2%
F3 Securities other than shares	*333*	*6 328*	*5 995*	*4%*	*69%*	*-66%*
F33 Securities o. t. shares ex. der.	338	6 322	5 984	4%	69%	-65%
F331 Short-term - excl. der.	14	664	649	0%	7%	-7%
F332 Long-term - excl. der.	324	5 659	5 335	4%	62%	-58%
F34 Financial derivatives	5	5	10	0%	0%	0%
F4 Loans	*380*	*1 422*	*1 042*	*4%*	*16%*	*-11%*
F41 Short-term – Loans	28	298	270	0%	3%	-3%
F42 Long-term – Loans	352	1 124	772	4%	12%	-9%
F5 Shares and other equity	*1 312*	*4*	*1 308*	*14%*	*0%*	*14%*
F6 Insurance technical reserves	*4*	*1*	*3*	*0%*	*0%*	*0%*
F7 Other receivable/payable	*552*	*378*	*173*	*6%*	*4%*	*2%*

Source: Calculations on data from Eurostat's Financial Accounts, online database.

Dynamics: Total assets and liabilities of the General Government have been growing 2% faster than GDP, therefore faster than households and non-financial corporates, but less than financial corporations and the rest of the world. On the asset side the fastest growth was that of securities other than shares (F3) that have been growing 13% faster than GDP, reaching 4% in 2010. On the liability side the growth of securities (F3) was 2% faster than GDP. The fact that total financial liabilities of the General Government have been growing less than those of the private sector, indicates that public debt must have grown less than private debt. Indeed Figures 20 and 21 below confirm that, implying that excessive public debt cannot be retained as a possible cause of the crisis. This can be seen by looking at the net positions for securities other than shares excluding derivatives (F33) and for loans (F4), which have been plotted in these figures for each sector and subsector.
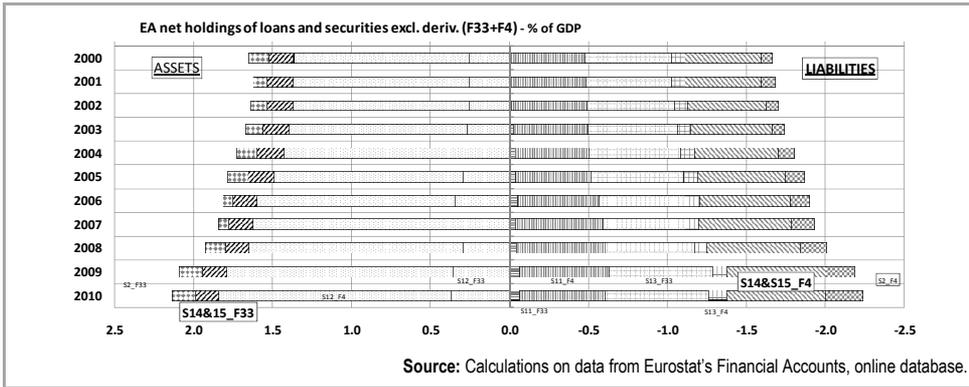
Figure 20 EA Net Holdings of Loans and Securities Excluding Derivatives (F33+F4) - % of GDP
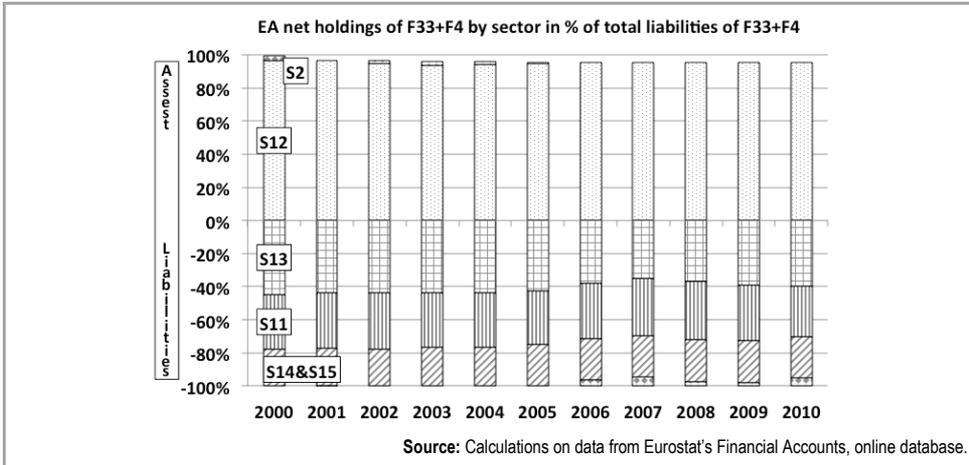
Figure 21 EA Net Holdings of Loans and Securities Excl. Derivatives (F33+F4) in % of Total Liabilities

As can be seen in Figure 21, the share of the combined net debt liabilities of the Government in the total net liabilities of the economy has been decreasing from 45% in 2000 to 35% in 2007, to then increase again to 40% in 2010. This confirms other evidence presented in Massimo Cingolani (2012) in support of Parguez's interpretation according to which the crisis was triggered by an excessive development of private debt compared to public debt, rather than by an excessive development of "public profligacy". The above conclusions are in line with the interpretation of the modern monetary economy made by the monetary circuit. If also currency and deposits (F2) are considered, these results do not change.

Indeed, a further confirmation of a relative lack of "good public liabilities" in the economy can be found in the evolution of the sum of central bank monetary liabilities and Government debt compared to an extended notion of total debt comprising F2, F3 and F4 for the whole economy. The relevant series are reported in Table 10 below.

Table 10　Liabilities of GG in Total Debt Assets of the Euro Area

EUR bn		2000	2003	2004	2005	2006	2007	2008	2009	2010
F2 Liabilities of S121 and S13	*(1)*	559	611	670	759	877	1 096	1 467	1 382	1 363
F3 Liabilities of S13	*(2)*	3 768	4 353	4 654	4 880	4 837	4 854	5 420	6 039	6 328
GG liabilities	*(3=1+2)*	4 327	4 964	5 324	5 639	5 714	5 950	6 887	7 420	7 690
F2 Monetary assets of S1	*(4)*	5 249	6 239	6 714	7 499	8 853	9 907	10 091	9 971	10 178
F3 Securities assets of S1	*(5)*	4 296	5 416	5 952	6 683	7 967	8 482	8 997	9 303	9 586
F4 Loans assets of S1	*(6)*	6 551	7 509	7 849	8 497	9 845	10 897	11 696	11 687	12 321
Total debt assets (F2,F3,F4)	*(7=4+5+6)*	16 095	19 164	20 515	22 679	26 665	29 286	30 784	30 961	32 085
Government liabilities in % of total	*(8=3/7)*	27%	26%	26%	25%	21%	20%	22%	24%	24%

Source: Calculations on data from Eurostat's Financial Accounts, online database.

5.5 Households and Non-Profit Institutions (S14 & S15)

Levels: As shown in Table 11 below, Households and Non-Profit Institutions Serving Households (NPIH: S14+S15) have a positive net financial position of 132% of GDP, which is the balance of a positive position of 200% for assets and a 68% negative position for liabilities. The main financial assets in gross and net terms are currency and deposits (71%), insurance reserves (61%), equity (48%) and securities (15%). The main component of household's liabilities is given by long-term loans, which represent 60% of GDP and should correspond by and large with residential assets, not included in the financial account. In this case total household's net worth should be of the order of 200% of GDP.

Table 11　Households and NPI (S14&S15) - Financial Account 2010

2010	S14_S15 - EUR bn			S14_S15 - % of GDP		
	Assets	Liabilities	Net	Assets	Liabilities	Net
BF90 Net financial assets		12 044	12 044		132%	132%
F_AS Financial assets	18 285		18 285	200%		200%
F_LI Financial liabilities		6 241	6 241		68%	68%
F1 Monetary gold and SDRs	-		-	0%		0%
F2 Currency and deposits	6 489	-	6 489	71%	0%	71%
F21 Currency	577	-	577	6%	0%	6%
F22 Transferable deposits	2 204	-	2 204	24%	0%	24%
F29 Other deposits	3 708	-	3 708	41%	0%	41%
F3 Securities other than shares	*1 336*	*0*	*1 336*	15%	0%	15%
F33 Securities o. t. shares, ex. der.	1 336	0	1 336	15%	0%	15%
F331 Short-term - excl. der.	32	0	32	0%	0%	0%
F332 Long-term - excl. der	1 304	-	1 304	14%	0%	14%
F34 Financial derivatives	0	0	0	0%	0%	0%
F4 Loans	*76*	*5 797*	*5 721*	1%	63%	-63%
F41 Short-term - Loans	18	298	280	0%	3%	-3%
F42 Long-term - Loans	58	5 499	5 441	1%	60%	-59%
F5 Shares and other equity	*4 389*	*1*	*4 388*	48%	0%	48%
F6 Insurance technical reserves	*5 555*	*0*	*5 555*	61%	0%	61%
F7 Other receivable / payable	*439*	*442*	*3*	5%	5%	0%

Source: Calculations on data from Eurostat's Financial Accounts, online database.

Dynamics: From 2000 to 2010, total financial assets of households grew just in line with GDP, as the rate of growth of the ratio of financial assets to GDP was zero%. On the assets side the highest growth was that of currency and transferable deposits, F22, which has been growing 5% faster than GDP. It is noteworthy that, contrary to assets, total liabilities of households grew 3% faster than GDP, driven by long-term loans (see Table 5), implying that their net financial net worth has decreased. The fast development of transferable deposits on the asset side in this context of stable financial assets and growing debt shows that "liquidity preference" has

increased. Riccardo Bellofiore and Halevi (2011) have described the above developments in terms of "traumatized workers, indebted consumers and manic-depressive savers".

5.6 Rest of the World (S2)

Levels: As shown in Table 12 below, the Rest of the World (RoW) shows a net positive financial assets balance equal to 14% of GDP. It holds EU currency for 17% of GDP, EU securities for 14% and shares for 7%, whereas it is indebted, having taken loans (F4) for the equivalent of 23% of GDP of the Euro Area in net terms. Gross financial assets of the RoW represented 348% of GDP in 2010.

Table 12   Rest of the World (S2) - Financial Account - Year 2010

2010	S2 - EUR bn Assets	Liabilities	Net	S2 - % of GDP Assets	Liabilities	Net
BF90 Net financial assets		1 273	1 273		14%	14%
F_AS Financial assets	31 843		31 843	348%		348%
F_LI Financial liabilities		30 570	30 570		334%	334%
F1 Monetary gold and SDRs	26		26	0%		0%
F2 Currency and deposits	6 477	4 906	1 571	71%	54%	17%
F21 Currency	199	105	95	2%	1%	1%
F22 Transferable deposits	1 577	1 210	367	17%	13%	4%
F29 Other deposits	4 793	3 592	1 201	52%	39%	13%
F3 Securities other than shares	9 870	8 598	1 272	108%	94%	14%
F33 Securities o. t. shares, ex. der.	8 989	7 695	1 294	98%	84%	14%
F331 Short-term - excl. der.	838	826	12	9%	9%	0%
F332 Long-term - excl. der.	8 152	6 869	1 282	89%	75%	14%
F34 Financial derivatives	881	902	21	10%	10%	0%
F4 Loans	3 705	5 830	2 124	40%	64%	-23%
F41 Short-term – Loans	1 564	2 654	1 091	17%	29%	-12%
F42 Long-term – Loans	2 142	3 175	1 034	23%	35%	-11%
F5 Shares and other equity	10 784	10 122	662	118%	111%	7%
F6 Insurance technical reserves	320	99	221	4%	1%	2%
F7 Other receivable / payable	713	922	209	8%	10%	-2%

Source: Calculations on data from Eurostat's Financial Accounts, online database.

The main item were shares (F5): 118%, Securities (F3): 108%. Currency and deposits (F2): 71%. These figures imply a potentially much stronger effect of a devaluation though exchange rate gains or losses on financial assets and liabilities held than through the real flows of exports and imports, as the calculated degree of openness is much higher (348%/560% = 62%, against about 15% openness ratio for flows at the level of the Euro Area). Total Financial Liabilities of the RoW represented 334% of GDP, of which the main components were equities (F5): 111%; securities (F3): 95%; currency and deposits (F2): 33%.

Dynamics: The total financial assets of the RoW have been growing 8% faster than GDP between 2000 and 2010 (see Table 5).

5.7 Discussion

The analysis of the previous paragraphs has shown that in the period 2000-2011 for the Euro Area the developments observed point to the presence of financial asset price inflation (Toporowski 2000, 2010), which can be retained as a factor explaining an increase of financial assets that is on average 3% faster than that of GDP in no-

minal terms. This is confirmed by the composition of this growth in terms of financial products and sectors. The fastest growing products have been securities, currency and deposits and equity. The fastest growing sectors have been the financial sectors. More specifically:

i.   the financial assets and liabilities of the domestic economy have expanded 3-4% faster than GDP, i.e. they have grown at 6.5% per year on average in absolute terms. Apart from monetary gold, in the domestic economy the fastest growth was that of securities (F3), followed by currency and deposits, especially for the financial sector. Equity also increased fast;

ii. private liabilities expanded much faster than public ones, with a tendency towards financial fragility;

iii. financial institutions (S12) have been growing 4% faster than GDP. Monetary financial institutions have been growing at 3% faster than GDP; non-monetary ones at 5%;

iv. the financial liabilities of the Government increased by 2%;

v.   those of non-financial corporates (S10) have increased 1% faster than GDP;

vi. the financial assets of households stagnated while, their financial liabilities increased by 3%. In net terms the households lost, all others gained;

vii. the financial assets and liabilities of the RoW grew by 8%. Globally the domestic economy lost to the Rest of the World, but the balance is rather small.

Financial asset price inflation was decoupled from net real fixed asset accumulation, particularly after the crisis. As shown in the Figures 22-30 below in all countries examined, the net investment rate, labeled INET, which gives the change in fixed assets over GDP [14] has remained either stable with fluctuations or significantly declined after the crisis, while there was a fast increase in the ratio of financial assets and liabilities over GDP (F_AS and F_LI). This is particularly clear for Germany where the net investment rate declined almost continuously from 7.5% of GDP in 2000 to some 2% in 2010, whereas financial assets over GDP have been increasing from 475% to some 735%. Austria and the Netherlands showed developments similar to Germany. In the Netherlands the ratio of financial assets to GDP increased from around 1,100% in 2000 to some 1,500% in 2010, whereas the net investment rate was falling from 8% to 2-3%. In Austria the financial assets over GDP increased from 400% in 1995 to 650% in 2010, whereas the net investment rate declined from 9% to some 4.5%.

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[14] Fixed capital formation net of capital consumption over GDP. It measures in principle the increase in the stock of fixed capital assets of the economy (normalized by GDP). In a single good economy, divided by the capital output ratio, it gives the GDP growth rate, according to the Harrod-Domar relation.
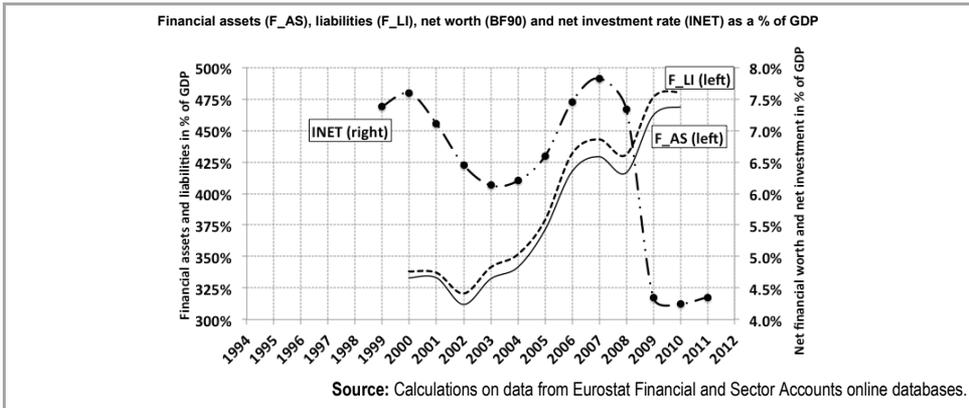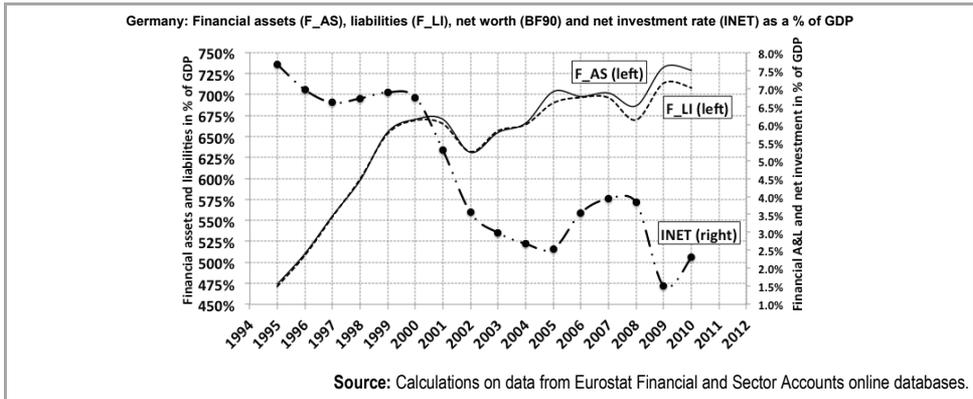
Figure 22   EU27: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation in % of GDP
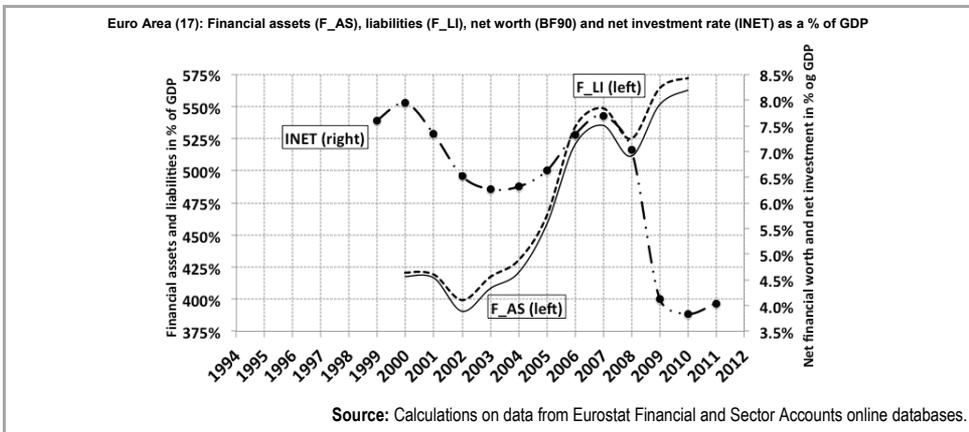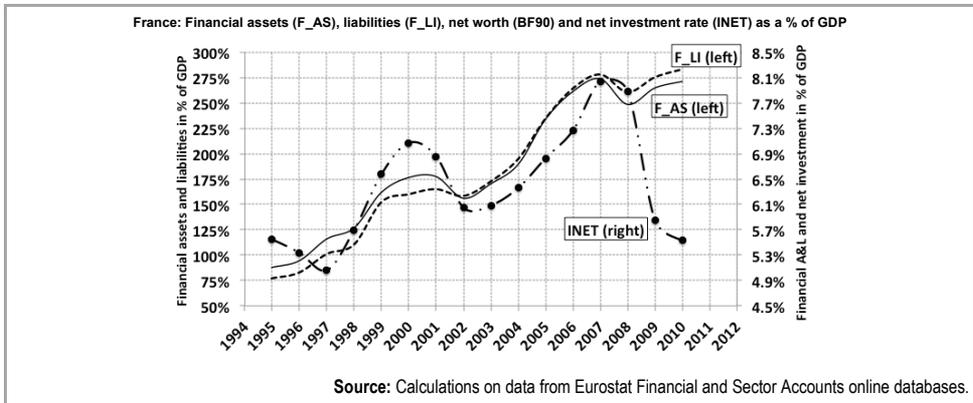

Figure 23   EA17: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation in % of GDP

France is the possible exception where the very fast increase in financial assets/GDP ratios was initially accompanied by a rise in the investment rate, which fell however with the crisis. For Italy Spain and Belgium there was some correlation between the expansion of the financial assets/GDP ratios and the net investment rate during the increasing phase of the cycle in the mid 2000-2010, possibly driven by residential price inflation particularly in Spain where the net investment ratio started from a very high level in 2000, however the net investment rate followed the financial assets / GDP ratios up to 2007 and then declined dramatically with the crisis. Unsurprisingly, countries such as Germany, Belgium and the Netherlands, which usually generate external current account surpluses, have been improving continuously their financial net worth, while others such as Italy, Spain and to a lesser extent France, that tend to have current external account deficits, have seen their financial liabilities growing faster than their financial assets (see Antoine Brunet 2009; Jean-Paul Guichard 2009).
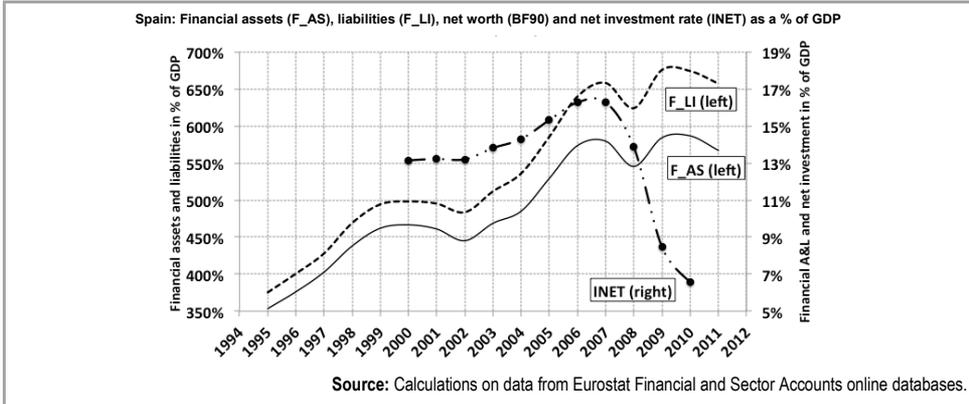
Figure 24 DE: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation
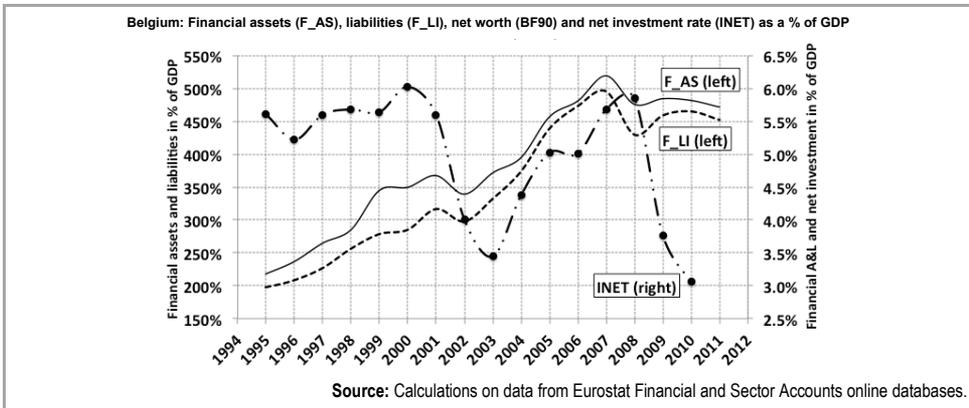in % of GDP

Figure 25 FR: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation
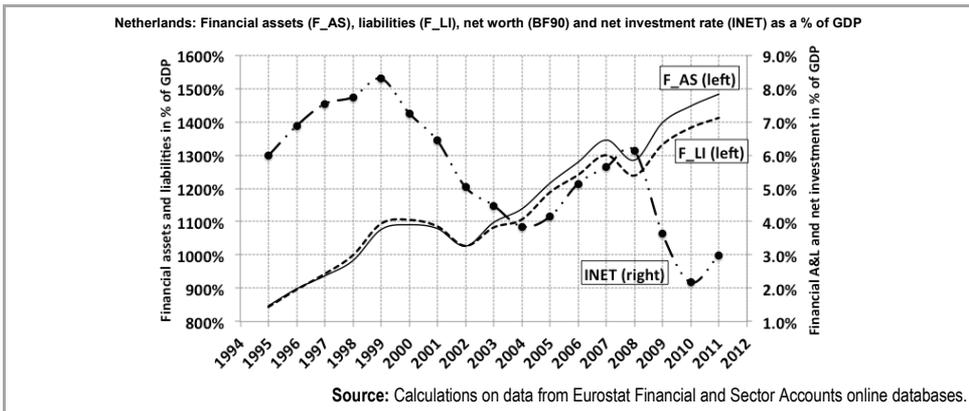in % of GDP
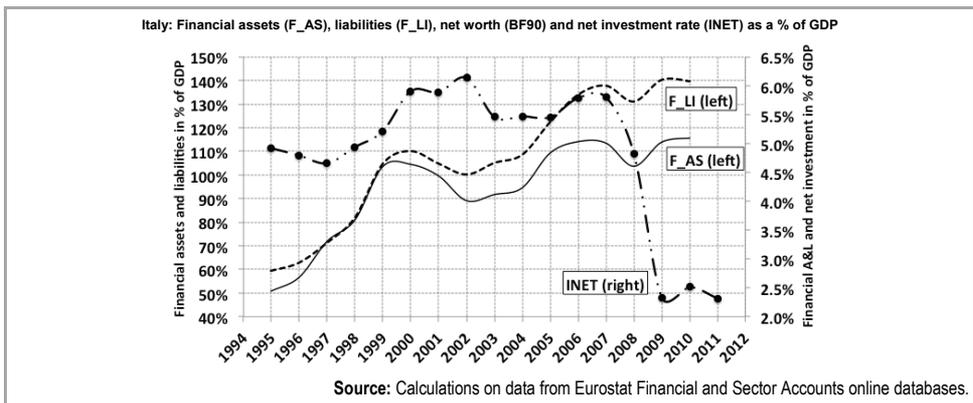
Figure 26 IT: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation
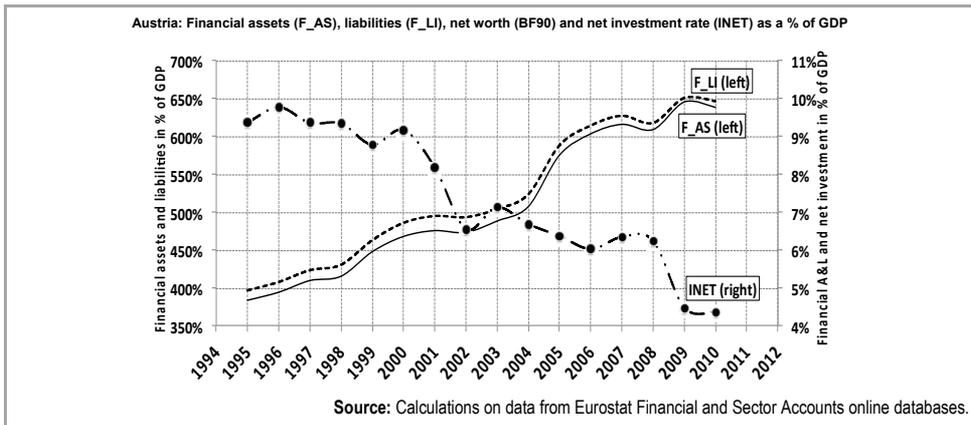in % of GDP

Figure 27   ES: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation in % of GDP

Figure 28   BE: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation in % of GDP

Figure 29   NL: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation in % of GDP

Figure 30 AT: Financial Assets and Liabilities versus Net Fixed Gross Capital Formation in % of GDP

Overall, for EU27 and the Euro Area, the increase in financial liabilities slightly exceeded that of financial assets over the period, and went together with a decline in the rate of accumulation of fixed assets assets by 3-4% points of GDP, indicating a strong drop of the "marginal efficiency of investment" as perceived by the private sector, implying divergent expectations in the financial sphere and in the real economy, a symptom but also a possible cause of the crisis.

6. A Monetary Circuit Interpretation

In the last decade credit and money growth exceeded that of the real economy in Europe, a phenomenon that has occurred also in other countries. Figure 31, which is an elaboration on Figure 21, illustrates the developments for the Euro Area for the net position of the sum of securities excluding derivatives (F33) and loans (F4). It shows that the net position of the monetary financial institutions, which is due essentially to loans (F4), increased from some 85% of GDP to some 125% of GDP between 2000 and 2010 (thick black line on the left axis). At the same time households increased their net debts measured by the net of loans taken (F4) less investment in securities (F3), which increased from some 30% of GDP to some 45% (right vertical axis, triangles)[15], while non-financial corporates increased their net debt position in terms of securities and loans (F33+F4) from some 45% to close to 65% in 2009 (line with crosses, right hand axis).

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[15] With respect to Figure 21, the sign was changed for net liabilities, which have therefore positive sign, like assets. There is no ambiguity however, because in net terms each sector is either positive or negative for a particular financial product.
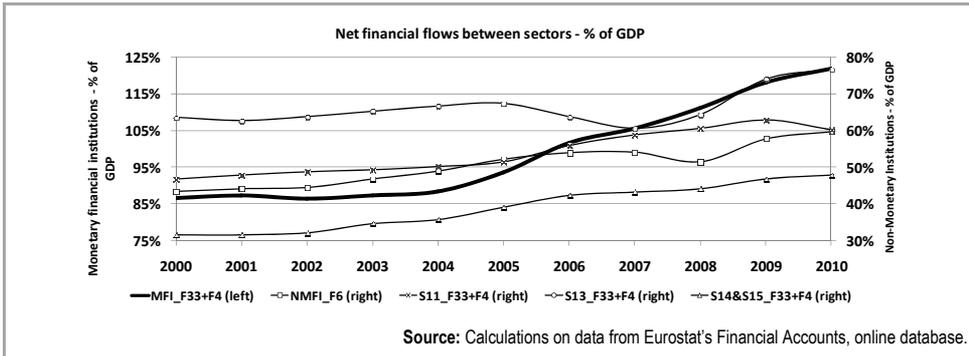
Figure 31   Net Financial Flows between Sectors

      Meanwhile the net debt position of the Government sector for the same products remained stable around 65% of GDP or declined until 2007, to then increase with the crisis (line with circles, right hand axis). In order to capture also the phenomenon of the collection of liquid savings by non-monetary financial institutions discussed with reference to Figure 19 above, Figure 31 also reports the net "absorbing liquid position" of this sector in terms of technical reserves. The latter has increased from some 45% of GDP in 1990 to some 60% in 2010, showing that this sector has been absorbing increasing quantities of "fresh" savings (line with squares, right hand axis).

      These facts can be interpreted in a monetary post Keynesian logic[16]. With the help of a model of the pure labour economy, Pasinetti (1993, pp. 82-83) has elegantly demonstrated how and why financial securities can be accumulated even in the absence of real accumulation. However in this case consumption cannot increase beyond the full employment level and, if distributed incomes do, a relative price correction is needed. Schmitt (1984) had also drawn attention to the problems of accounting for depreciation and the related excesses of money creation over real investment. Parguez (1996a) provided a neat monetary circuit explanation of how the targeting by *rentiers* of an excessive rate of financial return imposes a regime of low accumulation and high unemployment on the economy. These views point towards the following interpretation: in a world where "financial stocks can be created without physical limits" (Pasinetti 2012, p. 1448) and loans make deposits, financial institutions have been feeding their own "endogenous" money demand by keeping asset price inflation high, which generated financial rents for themselves in the form of capital gains. To the extent that this private money creation is not "validated" by a parallel increase in Government liabilities, the conditions for a liquidity crisis, which are also pre-conditions for a solvency crisis, are perfectly met (Cingolani 2012). This

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[16] For an overview, see Stephan Rousseas (1998). This view covers endogenous money (Moore 1989), the circuit approach (Rochon and Rossi 2011) as well as the Mynskian and cartalist analyses (Eric Tymoigne 2009; Elisabetta De Antoni 2010; Bellofiore and Halevi 2011, for Minskyan approaches; Randall L. Wray 2004; Pavlina R. Tchernerva 2006; Stefanie Kelton 2011, for the Cartalist approach). Philip Arestis and Sawyer (2006) present several surveys, showing that despite their differences, these approaches bring to rather converging policy conclusions.

interpretation can be illustrated by the scheme of a "double" monetary circuit, depicted in Figure 32, where, in the first circuit, dealing mainly with flows, true wealth and revenue creation takes place in the usual banking school/monetary circuit causal sequence: Initial Finance ⇨ Wages ⇨ Production ⇨ Consumption ⇨ Sales ⇨ Final Finance (Graziani 1984b).

While, in parallel, in the second circuit the recycling of accumulated savings (stocks) works under the causal sequence: Initial Finance ⇨ Asset Price Inflation ⇨ Rent creation ⇨ Financial fragility (Hyman P. Minsky 1978).

In both circuits money is endogenously created by secondary banks on the basis of borrowers' profit expectations (real and financial), but only that part which is validated by the Governments under the fiscal responsibility criteria is backed by "liquid" Government liabilities and thus finally validates the corresponding private sector bets (profits or rent endorsed by the State), the rest represents mostly financial rents endorsed only by secondary banks.

Source: Calculations on data from Eurostat's Financial Accounts, online database.
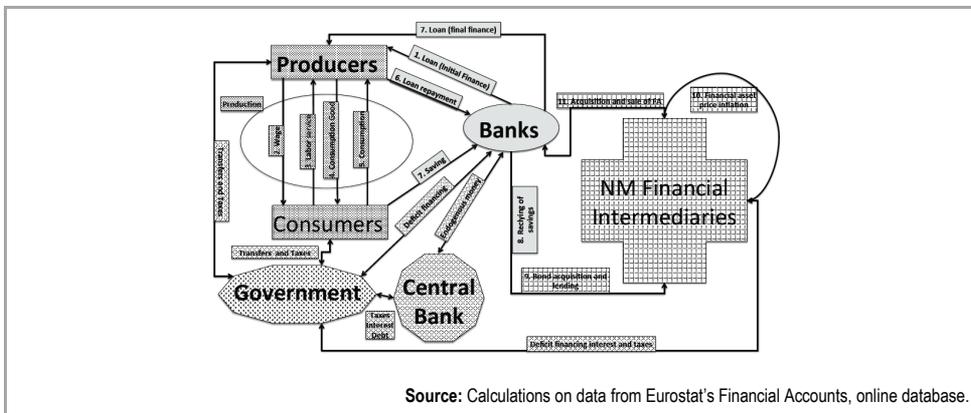
Figure 32 The Double Circuit of New and Recycled Savings[17]

Now, due to asset price inflation, financial investment provides returns higher than any other activity in the real sector and therefore always finds access to final means of payments. The imbalance lies therefore in the excess of "bad" liquidity creation for purposes other than true revenue creation, in other words in the proportions between the size of the first and the second circuit. This in no way contradicts the view that money is endogenous and that the deposit multiplier is in fact a divisor (Jacques Le Bourva 1992). It raises on the contrary the question of the rationale for the budgetary limits on public expenditure, since they are rationing precisely those expenditures of the first circuit that create more economic value, leaving room for the development of expenditures in the second circuit, which are less productive. Correction of this imbalance requires correcting relative prices between flows and stocks, or

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[17] The way the ideas have been visualized in the figure above is heavily inspired from a drawing made by Prof. Claude Berthomieu in a discussion in Luxembourg on 30.05.2007. The scheme also draws upon Parguez (1975, 1996b), Graziani (1984a, b), Davidson (1986), Michael Hudson (2012), Anastasia Ri (2012), and Mario Seccareccia (2012).

increasing wages relative to profits and rents, which requires also increasing public deficits for financing investment and true revenues rather than financial rents, as implicit in the related argument of Minsky (1978).

7. Conclusions and Policy Implications

In the Euro Area Financial assets represents six times GDP and public debt. They are accumulated mainly in the balance sheets of banks and non-monetary financial institutions (including the rest of the world). In the decade 2000-2010 their evolution shows that there has been a transfer of wealth from the productive sectors to the financial sector and rest of the World. The Government sector has been growing faster than the real wealth producing sectors, but less than the financial sector and the rest of the world. There was a clear decoupling of real fixed asset accumulation from the accumulation of financial assets. Particularly after the crisis, private producers anticipate low effective demand and therefore perceive a drop in the marginal efficiency of investment, while the finance sector assumes that it can continue to increase its monopolistic position on the economy at the expense of the other sectors. Being limited institutionally, public sector deficits can only passively validate the financial rents "authorized" by financial sector's lending, but they cannot play a positive role of anchor for long-term expectations of those operators creating value and cannot create enough true incomes such as wages and "true profits". The lack of a positive anchor for the expectations of the private sector is apparent in the importance of the share of currency and deposits (F2) in the assets the private sector, which reaches some 200% of GDP, indicating strong "liquidity preference", increasing with the crisis. This confirms a "fear for the future" already apparent in the drop of the net investment rate.

The above developments can be illustrated in terms of a double circuit: a "traditional" circuit of financing investment by new savings, where most "true" revenues are generated, and a circuit of savings' recycling, where most rents are generated. Money is endogenous and originates in credit in both cases. In the circuit for recycled savings, the financial sector lends to itself and borrows from abroad to feed asset price inflation and to extract increasing rents from the rest of the private sector, which remains defiant towards the future. Since there is no real accumulation, nor increased production, no real revenue (true wealth creation) is associated with the expansion of this second circuit, while the expectations of the real private sector continue to deteriorate and sooner or later the inflation in financial assets is stopped by the absence of new inflows of capital from the first circuit (Toporowski 2000). In this context, the effect of budgetary limits on public expenditures is that of rationing liquidity in the first circuit, not in the second, which can create liquidity at will through asset price inflation, and thus tends to worsen the economic situation. These conjectures could be tested econometrically, but given the well known limits of econometrics and the urgency to restore growth in Europe, it is preferable to spell-out the policy implications of the above analysis already at this stage. The Kalecki's identity has the advantage of making clear that the only way to "exit from the crisis from above" is to restore the expectations of the private sector producing real wealth, for which a progressive policy mix must be implemented, based on wage increases,

differentiated as a function of the national intra-EU current account positions, wealth creating active ex ante public deficits, low interest rates set in such a way as to remain below the rate of growth of wages, well devised regional and industrial policies etc. Several proposals in this direction were made recently including Alessandro Roncaglia (2010), Parguez (2010-2011), Sawyer (2011), Cingolani (2011-12), Seccareccia (2011-2012), Hein (2012), Vallageas (2012), and others.

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