

Iancu, Aurel

**Working Paper**

## Extending Financialisation and Increasing Fragility of the Financial System

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**WORKING PAPERS**

***Extending Financialisation and Increasing Fragility  
of the Financial System***

Aurel Iancu

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# EXTENDING FINANCIALISATION AND INCREASING FRAGILITY OF THE FINANCIAL SYSTEM\*

AUREL IANCU\*\*

**Abstract:** *Financialisation is a complex and dynamic process of enlarging the monetary and financial relations in economy and society. This paper deals with the analysis of the financial market structure such as: the role and magnitude of financial sectors, the dynamics of the banking sector versus the stock market and the rising role of the shadow banking sector. Also it explains and analyses the ways and modalities to develop financialisation by growing the public and private indebtedness, extension of the securitisation process and using the financial derivatives on a large scale. Considered endogenous factors, they all increase the fragility of the financial system.*

**Keywords:** *financialisation, financial sector, stock market, shadow banking, indebtedness, financial innovation, securitisation, financial derivatives*

**JEL:** *E44; G01; G18; G23; G24; G28; G32*

## 1. Introduction

The research of financialisation has received special attention in the last two decades, as proved by the frequency and diversity of approaches and printings as well as by profound studies in the field<sup>1</sup>.

A first reason to pay this attention is the fact that financialisation is invading deeper and deeper the economic and social life as the economy

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\* RESEARCH REPORT.

\*\* National Institute of Economic Research of the Romanian Academy.

<sup>1</sup> According to *Stockhammer* (2010), one of the more important works that broadly used the term “financialisation” was G. Arrighi, 1994, *The Long Twentieth Century: Money, Power, and the Origins of Our Times*, London; the author identified the long waves of economic development within modern capitalism along with geographic and dominance changes. The term has been used more frequently since the 1970, in a narrow and specific sense. The most comprehensive definitions of the term were provided by *Epstein* (2001) and *Stockhammer* (2010). According to *Stockhammer*, financialisation is used to sum up a long set of changes in the relationships between the financial sector and the real sector, which lays a stronger stress on the financial sector, actors and reasons than before (*Stockhammer*, 2010, p. 2).

develops and that actually we are not only at the individual level but also at the country and world levels in a world of finance (Krippner, 2005). Moreover, we live under a real domination of finance which the state authorities and empowered world organisations cannot or hardly can effectively control it (Arrighi, 1994; Arrighi and Silver, 1999; Lapavistas, 2009a, 2009b; Palley, 2007; Orléan, 1999; Aglietta and Rigot, 2009; Orhangazi, 2008).

A second reason is related to the annoying fact that financialisation implacably leads to increasing fragility of the financial system by raising the exposure risk to instability because of the multiplication of financial links<sup>2</sup> and the quick and disorderly expansion of crediting, securitisation and markets of new financial instruments. The financial business and coordination centres shifted from the national and regional levels to the global one due to the large international conglomerates' massive entry into financial markets, which distorts competition.

Since in the specialty literature almost every author opts for his own definition of financialisation, depending on the topic and objectives selected, I have to point out the connotation of "financialisation" adopted in this paper. In a broader sense, *financialisation, on one hand, is a process of expanding money relations and financial instruments within the economy and the society, considering all consequences, and, on the other hand, it shows the ways and methods to achieve the expansion (institutional changes, financial innovation, mechanisms to reduce and eliminate risks, etc.).*

*Considering the above connotation, financialisation, viewed as a dynamic and complex process, means the expansion and the diversification of financial relationships, institutions, instruments and mechanisms and the enlargement of their scope within the real economy and the society, the increasing contribution to involving the economic and social development factors and, implicitly, the increasing power to influence and dominate the economic and social life.*

As we shall see below, financialisation has developed very fast in the last decades, although it had developed in simpler forms centuries ago (Orhangazi, 2008; Lapavistas, 2009a). While some authors view financialisation as a mere experiment concerning the performance of sectors and markets (Wood & Wright, 2008, pp. 17-22), other authors view financialisation as a natural historical process

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<sup>2</sup> We refer to an increasing number of financial networks, the links between these networks as well as the links with other networks of the economy and the society.

closely linked to centennial changes in the position, role and importance of the macroeconomic sectors of the national economies – primary, secondary (industrial) and tertiary (services) sectors (*Clark, 1957; Rostow, 1960; Lapavitsas, 2009a*), laying the stress in our days on the services sector, including financial services in the developed economies. Being part of such a general historical process, the development of financialisation in the last decades has been stimulated by several factors, the most significant ones being the neoliberal decentralisation (since the 1980s, in the financial and commercial sectors), the innovation and utilisation of new financial instruments and mechanisms, the increasing indebtedness of the population (households) and companies, as well as the rising debt of the companies and public debt, the emergence and development of financial institutions and the main financial agents, as well as the demand for financial means (investments and liquidities) (*Onaran et al., 2010*).

In this paper, I approach financialisation taking into account its extremely fast evolution accompanied by asymmetrical developments and many excessive processes and results which cause increasing fragility of the financial system with dramatic consequences concerning its instability, and of the real economy. Specifically, in Section 2 we briefly present the present structure of the modern financial system and some examples of differences among countries and group of countries, often characterized by lack of coherence and cooperation. In Section 3, I present the expansion of financialisation within the economy and the society through indebtedness, securitisation and utilisation of financial derivatives, also considering some adverse consequences: instability and expansion of financial speculations. Section 4 consists in several conclusions.

## **2. On the present structure of the financial system and some shortcomings**

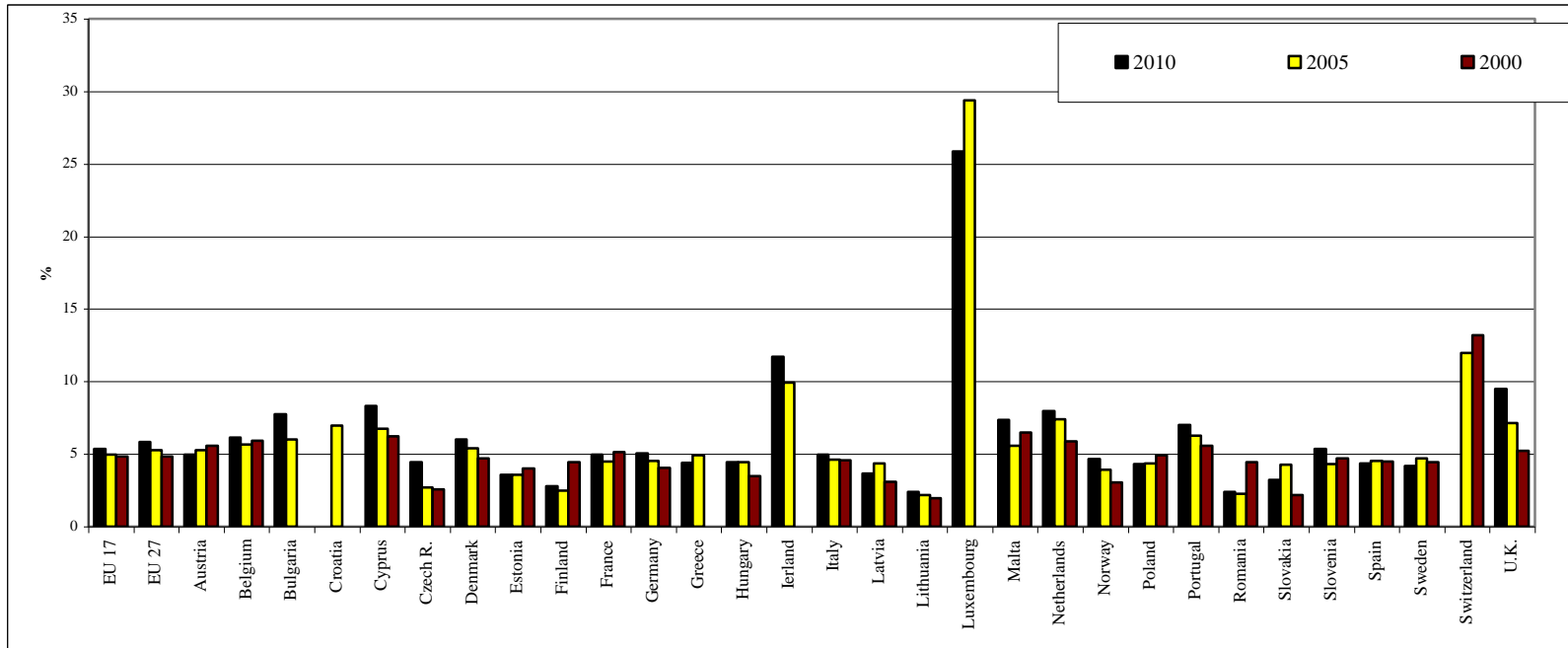
In any modern economy, besides the real economy sector (consisting of material production branches and non-financial services), also a sector of financial services (called inadequately financial industry) has developed. Naturally, the expansion of the financial sector must support the development and proper operation of the real economy and, equally, of the whole social life through a larger and more diversified supply of financial services. These services aim, on one hand, at stimulating savings and collection of available money from economic units and the population and, on the other hand, channelling this money to economy refunding and satisfying social needs by ensuring the necessary liquidities and investments.

## **2.1. A first sizing of the financial system**

The financial sector has a long experience in fulfilling increasingly broad and sophisticated functions of money and other specific derivatives in developing institutions and financial markets and dealing with the needs of national and world economies and of the society as a whole.

Many recognize that the role and the importance of the financial sector has mostly increased in rate, business volume and geographic coverage of certain segments of the economy and the society along with the countries' economic development. Although the indicators of the financial sector weight in the gross value added (GVA) and in the total number of employees are not very expressive, still they show a high level in the developed countries, especially in some European countries with a long financial tradition (Figure 1 and Figure 2). The weight of the financial sector is higher in developed countries such as Luxembourg, the United Kingdom, Switzerland, Ireland, recognized to be financial centres, and much lower in less developed countries such as Romania, Poland, Hungary, Bulgaria, etc.

Financialisation requires not only to develop a strong financial sector, in general, but also to develop a modern structure for satisfying the needs of the real economy and the society and to be consistent with the institutional and cultural system of the countries or the communities.

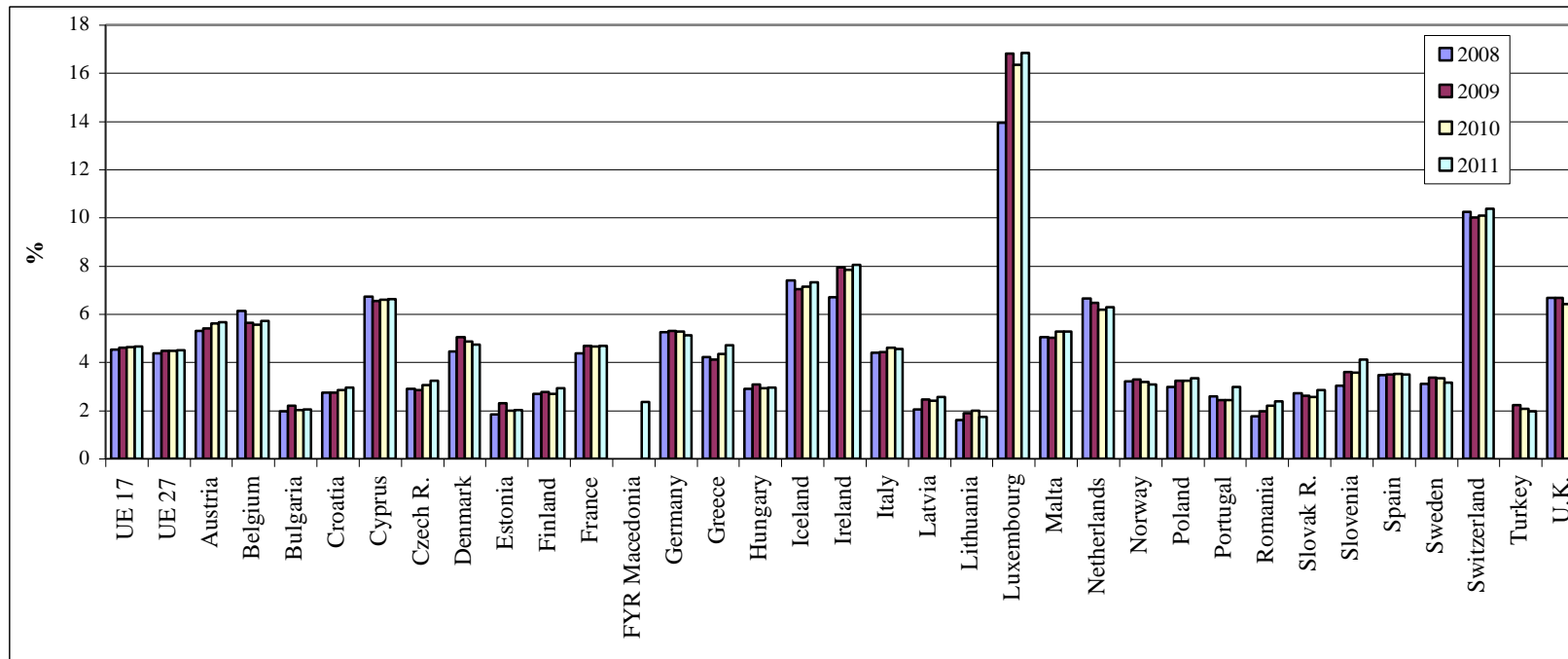


Source: Based on Eurostat.

Note: For Luxembourg, data for 2006 and 2009 are used.

Figure 1: The weight of the financial companies gross value added in the total gross value added in the EU and component countries, as well as Switzerland (in %)





Source: Based on Eurostat.

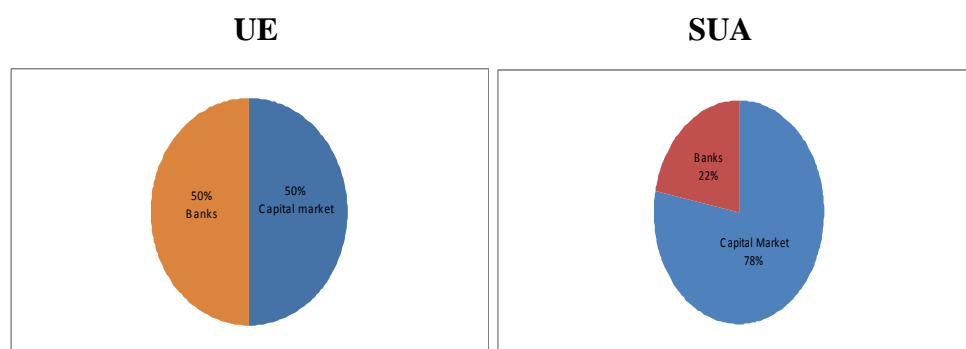
Figure 2: The weight of in the financial and insurance sector employees in the total number of employees in the EU, component countries, as well as Switzerland and Turkey (%)

## 2.2. Two concurrent sub-systems: the banking vs capital market

Various economic writings reveal that the prevailing structure of the financial system in modern economies consists of two sub-systems: banking and capital market. These sub-systems should be considered as being not separated or independent from one another but concurrent or as development alternatives to the financial system.

There are significant differences between countries regarding the development level of the two categories of markets: the banking and the capital market. Actually, in some countries (Germany, Japan, Netherlands, Romania, etc.) the banking sector is more developed, and in others the capital market is more developed (USA, UK, etc.) (Zisman, 1983; Albert, 1991; Amable, 2003; Demirgüç-Kunt and Levine, 1999; Levine, 2000; Ergungor, 2002).

Comparing and determining the financial assets for expressing the magnitude and the place of the capital and banking markets in every economy Figure 3 reveals a significant difference between the EU and the USA. In the USA the weight of the capital market assets in all financial assets is much higher (78%) than the banking assets (22%). In the EU, the shares of the assets of the two market categories are equal (50% and 50%)<sup>3</sup>.



Source: World Economic Forum, *Rethinking Financial Innovation*, 2012.

Figure 3: The weight of the banking market and the capital market in total value of financial assets in the EU and the USA, 2012 (%)

<sup>3</sup> The size of the capital market is expressed by the value of shares plus the value of guaranteed credit securities; the size of the banking markets is expressed by the value of bank assets (IMF, *Global Financial Stability Report 11/2011: Selected indicators on the size of the capital markets*, 2010).

In Europe, there are major differences among countries, i.e. between those with a tradition in developing the banking sector – Germany, Luxembourg, Switzerland, the Netherlands – and those with a faster developing capital market – the United Kingdom, Denmark and others. These differences show the size of the contribution of each of the two market categories to the funding of the economy. *Deinet* (2012) says that the capital market has a stronger vocation than the banking market to promote innovation in the economy and to fund investments on medium and long terms. As regards the prospects of each market, they depend on the regulation procedures, the financial innovations and the availability to reduce the transaction costs.

Following the discussions about the concurrent alternatives of the two markets, some authors conclude that they rather concern the specific ways of capitalist development of national economies, while others support the more realistic idea that they concern development differences caused by the prevailing institutional system (legislation, regulation level, traditions, etc.) and the degree of financial innovation, which model together the countries' capacity to ensure proper conditions to take advantage of each alternative (*Demirgüç-Kunt and Levine, 1999; Ergunçor, 2002*). This capacity changes in time and, at the same time, also the share of the two sub-systems in the financial system changes.

### **2.3. Increasing system complexity and size**

The above analysis is based on the traditional assumption considering the existence and the functioning of the two categories of concurrent markets: banking market and capital market. Of course, this is a very simple interpretation of the structure and operation of the present financial system. In the last three century quarters, profound changes in this system were determined by massive accumulation of capital, innovation in the computerisation and financial fields, regulation relaxation and liberalisation of capital movement. They were characterized as follows:

- The emergence and development of the so-called shadow banking system, which includes investment banks, monetary market funds, hedge funds, private equity funds, special purpose vehicles, etc. In this system, regulations are more relaxed than in the banking system.
- The development of financial institutions such as pension funds, mutual funds, insurance funds, etc. – as important players on the financial market.
- Spectacular changes in some types (categories) of financial transactions in the banking system – expansion of loans granted to natural persons and households, expansion of mortgage loans, etc.

- The emergence and significant development of OTC markets, mainly stimulated by increasing securitisation and the use of financial derivatives.
- The global integration of financial markets by removing the barriers to free movement of direct capital investments, of financial investments, etc.
- The integration of EU financial markets by creating a single currency (euro) and the Eurozone to which EU member countries (except the United Kingdom) get access as they are fulfilling the convergence criteria.

Most of the shadow financial system, including insurance systems, has changed into gigantic multinational financial conglomerates functioning on the basis of less rigid regulations or circumventing regulations, thus stimulating innovation and the use of new instruments and non-transparent financial transactions. It is estimated that in terms of assets amount, the US shadow banking system is equivalent to the classic banking system (Stockhammer, 2010; Adrian and Shin, 2010). In Europe, financial innovations were late and not so quick as in the USA, and the development of the shadow banking system, including that of the OTC market, which diminishes its influence.

#### 2.4. Incongruity and effects

Increasing the complexity of the financial system structure as mentioned above causes major problems mainly of a functional nature. This generates serious gaps, incongruity, non-synchronisation and inadequacy. If all these shortcomings remain unsolved or are solved only partially, they cause increasing fragility of the financial system. For example, in the EU and mainly in the Eurozone, the debt crisis revealed some severe institutional dysfunctions that cause huge financial crisis (Smith, 2012). These failures of the system are caused by a well-known but still unsolved situation. As regards the monetary matter, along with the integration into the Eurozone, i.e. giving up the national currency and adopting the single currency, the seventeen member countries *gave up national sovereignty in matter of monetary policy*. Their monetary policy was taken over at the EU level by the European Central Bank. But *in matter of taxes and budget, the national sovereignty of every country was preserved by applying own policies*. This dual situation might deprive both national governments and the European Commission of financial and economic instruments necessary to control macroeconomic and financial disequilibria. Within this new construction, no full action was taken to accommodate the financial mechanism to new requirements. In other words, there has been and still is a fundamental contradiction consisting in a traditional segregation of the

financial system and the fiscal-budgetary system, which causes bigger disequilibrium and financial and economic instability. This contradiction, described by *Smith* (2012), is related to the following:

- When a monetary disequilibrium occurs, the ECB does not intervene in the financial market as a last resort creditor, similar to a central bank; this task is taken on by the central banks of states of the Eurozone, which questions the capacity of such banks to meet the challenges;
- After giving up the national currency and adopting the euro, governments were no longer allowed to implement monetary policies such as using the exchange rate to resolve the problem of the current account deficit by stimulating imports and discouraging exports;
- Also, due to the elimination of the national currency, inflation could no longer act in the national economy as a natural mechanism of adjustment of certain macroeconomic aggregates in case of disequilibria (uncovered wage rise, price rise, lasting current account deficit, etc.);
- Once the euro is adopted, no control can be exerted over imports, and in the case of national economies developing on the basis of consumption rise and not on export growth, the instrument to maintain the balance of payments is mainly the loan at three levels: government, companies and population (households);
- Keeping the fiscal-budgetary policies at the national level after giving up the national currency means, on one hand, causing budgetary deficit and further borrowing, and, on the other hand, preventing also the EU authorities in Eurozone from using real economic instruments of control and budget deficit.

As long as the monetary policy, the fiscal-budgetary policy and the functioning of capital and financial markets are not fully integrated (the fiscal-budgetary policy still remains in charge of national governments), the EU will be a kind of uncompleted form of state organisation, influenced by economic and political disputes and undermined by centrifugal (local and peripheral) interests, unable to make firm and timely decisions to the general interest of the component communities. The first steps taken recently under the pressure put by the financial crisis for a fiscal-budgetary integration (through the Stability and Growth Pact and subsequent documents) are quite encouraging. But these steps are too slow and accompanied by the politicians' reservations and conditions, if we consider the speed and frequency of the financial stability. By speeding up the integration of the fiscal-budgetary system a decisive step would be made for consolidating the EU as an economic and political force for controlling economic and financial crises to the interest of all communities.

### **3. The development of financialisation and the question of its sustainability**

Usually, economists link the evolution of the real economy to financialisation, to the contribution of financialisation to the real economy growth. Pointing out that economic growth cannot be achieved without proper financial intermediation, Lucian Croitoru (2012, p. 189) considers that financial intermediation is low in Romania, if compared to the Eurozone average, and that Romania's economic growth at its potential level is not possible without foreign loans, provided that their level and the current account deficit level are sustainable.

Traditionally, the financialisation of the economy has been achieved through banks, capital markets and, partially, non-banking financial institutions, using as instruments crediting, securities issuing and trading. But in the last decades, mainly due to the triumphant neoliberalism, a major role has been played by investment banks, financial funds, large international financial conglomerates as well as OTC markets. Only in the last years and mainly due to the EU's negative experience, it has been decided to take steps for integrating the fiscal-budgetary sector into the financialisation process, besides the banking sector and the capital market, taking into account that the tax authorities and the budget drains important financial resources amounting to 30-60% of the total GDP of the countries, on one hand, and that they are strongly interdependent with the other components of the financial system, on the other hand.

As we shall see below, the development of financial institutions and their role in financializing the economies follow a certain dynamics depending upon the level of development and modernisation of economies, the phases and characteristics of economic cycles, the innovations made, and the innovation application level.

Besides the positive role of expansion and deepening of the economy financialisation process, we find a high growth of some components of the financial system that cannot be supported by the system and causes instability through imbalances. Frequently, the scientific debates about financialisation point out that finance dominates the real economy and derive increasing rents from the real economy through sophisticated and obscure financial mechanisms and the acceptance of moral hazard or even its stimulation for various reasons.

### **3.1. Financialisation through indebtedness**

One of the well-known and important means of financialisation was crediting both the private sector (companies, the population, etc.) and the public sector. By crediting, communities can resolve vital economic problems: carrying out development projects, obtaining liquidities, covering some current account or budgetary deficits, etc. As long as crediting is made within reasonable limits of prudential behaviour and no strong disturbing factors occur, financialisation through indebtedness is a positive factor of economic and social development. But recent developments hardly confirm the hypothesis of being reasonable.

#### *3.1.1. Indebtedness outburst*

The excessive relaxation of financial markets through massive deregulation and enormous increase in money available on financial markets and incorrect assessment by rating agencies and others led to very cheap crediting and, consequently, to a high general rise in internal and external, private and public indebtedness in most countries. One should also add not only the general desire of the banks to increase profits through massive and cheap offer for credits, along with a general relaxation related to risk within the relationships with economic agents in different stages of the economic cycle, but also an irrepressible propensity of many politicians to promote populist policies at the expense of the public debt, irrespective of their countries' intolerance to debt. Here are a few explanations regarding the very high rate and level of financialisation through indebtedness even in countries with a long tradition in matters of prudential financial policy (Germany, France, etc.).

Table 1 presents, for example, the level, the structure and the evolution of indebtedness of several developed countries and Central and Eastern European Countries (Bulgaria, Czech R., Hungary, Poland and Romania) in the following stages: before the crisis and after the crisis. According to the data in the table, the level of total indebtedness exceeds the GDP of the listed countries, ranging widely from 2.76 times in Canada to 6.63 times in Ireland. Since in Romania this indicator is so low, it does not express a real value unless it is also viewed from a dynamic perspective. Indeed, in the 2000-2008 period, Romania's indebtedness increased by 866 percentage points as against 7-323 percentage points in the other countries included in the table. The diminution by 10 pp in Romania's indebtedness in the 2008-2011 period is a positive fact. The continuation of this lowering trend is necessary and equally difficult unless

we consider, on one hand, the structure and the limited income resources on which Romania counts and, on the other hand, the high budgetary expenditure and high costs of the economic crisis. An important variable for continuing the above trend is the politicians' eagerness to observe, through political decisions, the requirements regarding the financial equilibrium, as well as their determination to carry out institutional and economic-financial reforms to make this equilibrium sustainable.

Table 1

Indebtedness in relation to the GDP and its structure in the second quarter of 2011 and indebtedness variation in several developed countries and Central and Eastern European Countries, 2000-2008, 2008 – 2<sup>nd</sup> quarter of 2011, (%)

No.	Country	Indebtedness in relation to GDP, 2 <sup>nd</sup> quarter of 2011				Total debt variation (percentage points)		
		Total debt <sup>1)</sup>	of which:			2000-2008	2008-Q2 2011	
			Government	Population (households)	Financial institutions			Non-financial corporations
1.	Ireland	663 <sup>2)</sup>	85	124	259	195	...	...
2.	United Kingdom	507	81	98	219	109	177	20
3.	Spain	363	71	82	76	134	145	26
4.	Portugal	356 <sup>2)</sup>	79	94	55	128	...	...
5.	France	346	90	48	97	111	89	35
6.	Italy	314 <sup>2)</sup>	111	45	76	82	68	12
7.	Germany	278	83	60	87	49	7	1
8.	Japan	512	226	67	120	99	37	30
9.	South Korea	314	33	81	93	107	91	-16
10.	Hungary	309	80	37	62	130	252	-3
11.	USA	279	80	87	40	72	75	-16
12.	Australia	277	21	105	92	59	77	-14
13.	Canada	276	69	91	63	53	39	17
14.	Bulgaria	177	17	25	15	120	323	2
15.	Poland	161	60	36	22	43	161	26
16.	Czech R.	146	46	31	22	47	163	20
17.	<b>ROMANIA</b>	<b>122</b>	<b>34</b>	<b>20</b>	<b>18</b>	<b>50</b>	<b>866</b>	<b>-10</b>

1) Including all debts and securities with fixed incomes of households, corporations, financial institutions and the government.

2) Data on the 1<sup>st</sup> quarter of 2011.

Source: McKinsey Global Institute, Updated research, Debt and developing: Uneven progress on the path to growth, January 2012, pp. 2 and 5. For Romania, Bulgaria, Czech Republic, Hungary and Poland - Eurostat with data reporting at the end of 2011.

The indicator of total indebtedness includes the following three categories of indebtedness: government (public), population and business sector (financial institutions and non-financial corporations); each category is characterized by specific objectives and situations, briefly presented below.



### 3.1.2. Public indebtedness

Governmental or public indebtedness is an important means of financialisation. We have three comments on this:

- Public indebtedness reaches high amounts, if compared to incomes and, sometimes, to possibilities to pay the principal and the interest. If compared to the GDP size, public indebtedness takes on different proportions by country: from 17% in Bulgaria to 111% in Italy and 226% in Japan. Romania's public indebtedness at the end of 2011 was 34% of the GDP and tended to increase. In Greece, in four years (from 2006 to 2010), public debt increased from 224 billion euro to 329 billion euro, and the proportion of interest payment only on the government (budget) income increased over the same period from 11.1% to 14.2%, while the GDP diminished significantly (*Smith, 2011*).
- All EU countries included in the table, except for Bulgaria, the Czech Republic and Romania, have sensibly exceeded the 60% rate for the ratio of public debt to GDP provided in the convergence criteria list of the Maastricht Treaty.
- Due to the high level of public indebtedness and some financial policies based on soft budgets (Kornai, 1980), *the needs of gross funding increased enormously, as they were caused both by debt maturity (including the interest) and by the budget deficit*. In 2012, these needs, related to the GDP, accounts in the developed countries for an average of 25.7%, of which: Italy 28.7%, Portugal 26.7%, Spain 20.9%, Japan 59.1%. The funding needs amounted in 2012 to 19.3% for Hungary and 12.3% for Romania (IMF, 2012). Because of the high rate of debt service and the fact that government bonds lost their status of risk-free assets (*Croitoru, 2012*) due to a lower country rating, to difficulties in obtaining new credits on the financial markets, to the preservation of inadequate financial-budgetary mechanisms (mentioned above), etc. a debt crisis was triggered in some countries of the Eurozone.

Usually, when analysing countries' indebtedness it is required to use the 60% convergence criterion (provided by the Maastricht Treaty) as a limit of public debt in relation to the GDP. Paying more attention, it seems to be quite dangerous especially for less developed countries as long as other

important factors and indicators are considered, such as: public debt growth rate, the ratio of net export to the GDP, as well as the level of intolerance to debt. The very level of this convergence criterion considered a limit benchmark, generally valid, is vulnerable since it has no foundation. In the recent history we find several countries which – although below the limit prescribed by the EU were seriously affected by the credit crisis just because of their high intolerance to credit (*Reinhart and Rogoff, 2009*).

### *3.1.3. Population indebtedness*

Another significant type of financialisation spreading is population (household) indebtedness increase. This type of indebtedness reaches high levels in relation to the GDP. It varies in CEE countries from 20% in Romania to 37% in Hungary, and in the other countries included in Table 1, from 37% in South Korea to 124% in Ireland. The most important chapters concerning this type of indebtedness refer to mortgage loans for housing, loans for buying durables, loans for buying cars, loans for vacations, for schooling, credit cards, etc.

The high proportions taken on by the population indebtedness, caused especially by mortgage credits and other types of subprime credits, was the main cause of the 2007 crisis in the USA and the 2008 crisis in Europe, having a contagious effect in almost all countries.

Radical economists are right to consider this kind of indebtedness as one deriving from the tendency of modern capitalism to distribute inequitably incomes throughout the economy in favour of the financial corporations to the detriment of the employees. Excessive indebtedness of the population is, according to them, only the result of a relative diminution in the real wage level, i.e. a form of compensation for this diminution. Unfortunately, even this compensation is demolished by the financial crisis. The population is held increasingly captive by the financial system and is forced to pay debts at the initial value of assets that - because of the crisis - diminished to less than half the initial value.

### *3.1.4. Business environment indebtedness: factors and effects*

Another way of financialisation through crediting, with a major role in the economy and a high proportion if compared to the GDP, is that in the private business field (financial institutions and non-financial corporations).

The data presented show a high level of financialisation of companies (resulted by the combination of the financial ones and the non-financial

ones) and, at the same time, a significant difference among countries. Considered together, the two categories of companies in some countries incur very high debt if related to the GDP: varying from 65% in Poland to 68% in Romania, 454% in Ireland, etc. The risk of such credits depends not only on the financial power of the companies, but also on the scheduling of credit reimbursement, the credit currency, fluctuations in interest and exchange rate, etc.

The credit spreading level is different even inside national economies, depending upon the proportion of companies' requests for credits and the mechanism and the institutional system that could favour or hinder the companies' access to credit sources. The data contained in a World Bank study (World Bank, 2012) show that both at the world level and at the OECD level as well as in some EU member countries, the proportion of companies that needed no loans ranged between 39% and 59%, and the proportion of companies that borrowed or had bank credit lines was 35.9% at the world level and 40.2-71.2% in Central and Eastern European Countries (Table 2).

Table 2

Indicators for assessing the companies' access to credits, the borrowing requirements and the access to financial services, by countries and groups of countries (2009) (%)

No.		Percentage of companies that borrow or have bank credit lines	Proportion of loans requiring collaterals (%)	Proportion of collaterals required for a loan (% of borrowed amount)	Percentage of companies not requiring loans
	A	1	2	3	4
1.	World level	35.9	78.0	163.3	39.4
2.	Eastern Europe and Central Asia	44.2	81.0	134.7	39.8
3.	OECD countries	44.0	71.4	128.4	53.0
4.	Bulgaria	40.2	83.4	145.2	41.8
5.	Czech Rep.	46.6	71.4	128.4	53.0
6.	Estonia	50.8	71.6	103.5	47.7
7.	Latvia	48.5	75.2	139.8	47.9
8.	Lithuania	53.0	83.4	99.2	41.8
9.	Poland	50.1	62.5	129.3	48.9
<b>10.</b>	<b>Romania</b>	<b>42.3</b>	<b>75.5</b>	<b>127.7</b>	<b>43.6</b>
11.	Slovak Rep.	42.4	77.5	122.3	52.1
12.	Slovenia	71.2	55.0	115.7	38.7
13.	Hungary	43.0	84.8	144.7	59.2
14.	Turkey(2008)	56.8	65.1	89.9	38.1

Source: The World Bank, International Financial Corporation, *Entreprise Surveys, What Business Experience* (<http://www.enterprisesurveys.org/data/>).

In OECD countries the proportion of loans requiring collaterals is 71.4% and the value of collaterals necessary for a loan amount to 128.4% on

average. A characteristic of the credit market in Romania is the fact that only about 25% of all SMEs apply for credits and they use 65-70% of all bank loans (*Croitoru, 2011, p. 410*).

As regards the mechanisms and the institutional system ensuring access to credits, we shall first refer to the framework that facilitates access and improves the allocation of credits. This framework consists of information on the credit and the legal rights of the borrower, i.e. the financial potential, the capacity to use the assets (especially the real estate) in the form of securities generating capital (*The World Bank, 2012*). According to the credit access criterion, Romania ranks the eighth, beside Poland and Bulgaria, among 183 economies, while Hungary and the Czech Republic rank the 48<sup>th</sup>.

A leading role in expanding financialisation is played by the investors' protection criterion with three dimensions: the transparency of transactions between parties, a responsible behaviour in business relations, shareholders' power to control and dismiss directors and staff members failing to manage the business. According to this criterion, out of 183 countries surveyed, Romania is the 46<sup>th</sup>, equal to Poland, but before the Czech Republic (97<sup>th</sup>) and Hungary (122<sup>nd</sup>) (*The World Bank, 2012*).

The above data show that Romania enjoyed relatively favourable conditions for raising the private indebtedness level along with other developed countries and emerging economies. Unfortunately, economic literature and governmental financial policies take into account rather public indebtedness (especially the external ones) than private indebtedness. Actually, private overindebtedness (of financial and non-financial companies and of the population) spread a risk to macroeconomic stability as important as public overindebtedness is. An unreasonable and uncontrolled scheduling of the debt of companies, a high proportion of credits in foreign currency, insolvency and bankruptcy of large financial (banking and non-banking) companies may cause a financial crisis similar to that caused by government insolvency, especially to emerging economies with a high level of intolerance to debt (*Reinhart, Rogoff, 2009*). For example, in 2009 the private sector in Romania had to pay an external debt of 30 billion euro (25% of the GDP), which turned into a high pressure caused by the high demand foreign currency. A strong depreciation of the leu would have aggravated the economic crisis. Only the Agreement with the IMF, the World Bank and the EU to consolidate the National Bank of Romania reserve could stabilize the exchange rate and defuse the economic crisis.

### 3.2. Financialisation through securitisation

Another way to extend financialisation is securitisation. This is an alternative and flexible channel of funding and consists in transforming non-tradable (non-liquid) assets existing in the form of credits into tradable (liquid) assets in the form of securities and selling the latter on a contract basis to financial investors (investment banks, mutual funds, hedge funds, pension funds, insurance companies) through specialised agencies. In other words, bank loans and other financial assets packed together with tradable securities are sold on the secondary market. According to *Jobst* (2008), securitisation is defined as a process implying the packaging and repackaging some portfolios of financial instruments that generate liquidities and take the form of securities to be transferred to other parties called investors<sup>4</sup>.

#### 3.2.1. Objectives and the role of securitisation

Securisation proved to be extremely effective to the benefit of the bank of origin wanting liquidities, to increase the profit by reducing transaction costs and to save own capital and transfer the credit risk to the investor who buys securities.

Since many loans granted by banks are on long term – mortgage loans, for buying cars, for material investments, etc. – they immobilize the capital and burden the balance sheets of the banks on the same term. Understood as a process by which the bank credits and other financial assets taken from the balance sheet and packed as tradable securities and sold on the OTC market (*Altunbas et al., 2007*), securitisation becomes an important way to avoid such constraints<sup>5</sup>.

Changing credits into securities and selling them to investment banks and other financial institutions implies multiple effects converging with securitisation and financialisation:

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<sup>4</sup> Implemented in the USA in the 1980s, first for car credits, securitisation was taken over by government sponsoring agencies, Fannie Mae and Freddie Mac in the mortgage credit field, and implemented for increasing the credit liquidity by issuing asset-backed securities. Step by step, the fields of securitisation application expanded and included assets of corporations, bank assets, etc. It originates with the banks and not with the agents. In European countries, first of all in the United Kingdom as well as in Eurozone countries – Belgium, France, Germany, Greece, Italy, Portugal, Spain, etc. – securitisation was initiated in the 1990s, along with the adoption of a single currency, by passing some specific laws aimed to remove the obstacles to securitisation (*Altunbas et al., 2007; Vink and Thibeault, 2008*).

<sup>5</sup> Jobst Andreas, 2008, “What is Securitization?”, *Finance and Development*, vol. 47, No. 3 (September); IMF, *Global Financial Stability Report*, October 2009.

- a) For commercial banks this means obtaining new liquidities for granting new credits as well as changing their role from “initiating and holding” credits to “initiating, repackaging and selling” credits (Altunbas *et al.* 2007).
- b) For the financial system, this means the transfer of credit risk from the unit issuing the securities to the new investor (buyer), along with the development of a financial intermediation network and the integration of the financial (banking and non-banking) system into the capital market.

Securitisation has not only positive effects but also adverse or negative effects which are more unpredictable and stronger than the effects of crediting because of, on one hand, the non-transparency and complexity of the new financial instruments as well as the absence of proper regulations, and, on one hand, the non-transparency and the high and heterogeneous volume of transactions. These effects undermine the stability of the financial system.

The above brief description includes the main explanations and assumptions concerning the expansion of the securitisation of the present financial system and its increasing fragility. To understand the present processes in the securitisation area, we should also refer to some characteristics of the factors operating now in the financial system and to some indicators and innovative instruments that enable the assessment and the development of securitisation. Also, we have to refer to the increasing complexity, the supervision and regulation problems as well as the vulnerability caused by securitisation.

### *3.2.2. Conditions for developing financialisation through securitisation*

What distinguishes the last decades from earlier periods is the favourable conditions for a faster expansion of financialisation through securitisation. These conditions refer to the following:

- The progress made in information and communication technology for storing, processing and transmitting financial data in real time and at low cost.
- The development and introduction of new financial instruments and the refining of the existing ones aimed to resolve problems concerning the banking system liquidity, the credit risk transfer by trading securities, a diminution in the transaction costs and increasing effectiveness of the available capital of the financial entities.

- Increasing demand for the new securities owing to the increasing interest of investment banks and financial institutions (mutual funds, pension funds, risk funds, etc.) in investing in guaranteed risk credits and assets enjoying an acceptable rating.
- Bigger and more diverse banking and capital markets owing to globalisation and the European integration through the introduction of a single currency and the restructuring of financial institutions within the EU, which results in a general increase in liquidity and in the amount of traded securities and other financial instruments.

### 3.2.3. Volume and structure indicators by type of securities

The evolution for backed securities markets – as a basic way to develop financialisation – can be illustrated by various indicators characterizing the amount and structure of backed securities. To characterize the financialisation by securitisation we use the following classes of indicators:

- a) Volume indicators, of which:
  - Value volume of issued securities;
  - Value volume of the stock of securitized debts;
  - Value of backed securities retained by the issuing institution;
  - Value of backed securities sold to investors.
- b) Structure indicators by types of securities issued and sold on the capital market<sup>6</sup>:
  - Asset-backed securities (ABS) including: car credits, credit cards, consumption loans, education loans, equipment leasing, credits to SMEs.;
  - Mortgage-backed securities (MBS) such as: residential (RMBS) and commercial (CMBS).
  - Collateralised Debt Obligations (CDO) including bonds and loans. The so-called synthetical CDOs and squared CDOs (namely CDO<sub>s</sub><sup>2</sup>) are derived from this category.

CDOs and MBSs are issued by a specialized institution called Special Purpose Vehicles (SPV).

Lately the list of instrument innovations has been completed as follows: Credit Default Swap (CDS), monetary and financial derivatives,

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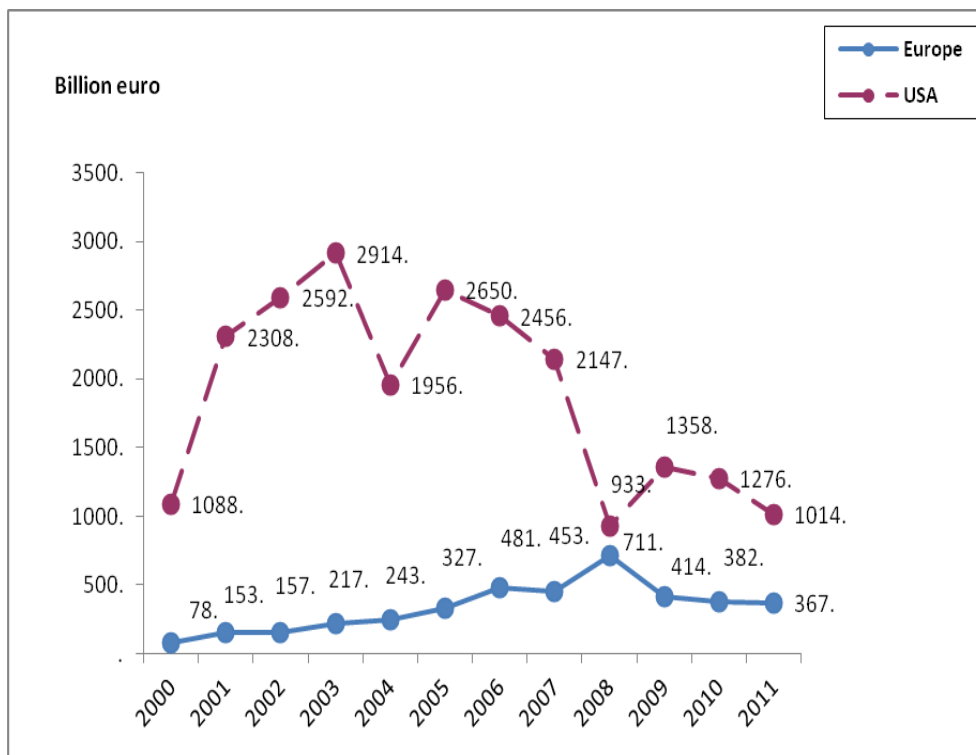
<sup>6</sup> See Choudhri M. and Fabozzi F.J., 2004, *The Handbook of European Structured Financial Products*, Wiley Finance; Dennis Vink și André E. Thibault, 2007, *ABS, MBS and CDO Compared: An Empirical Analysis* [Vink\_ABSMBSCOO.pdf].

stock exchange indexes, private equity and others (Duffie, 2007; Altunbas et al., 2007; Jobst, 2005; ECB, 2009).

3.2.4. Illustration of securitisation development and effects related to the financial cycle

Although the markets of new financial products have a short history, they saw a major growth both in the USA and in Europe (especially in countries having developed financial systems). Among the main factors causing this phenomenon we find: advantages offered by the new mechanism of funding both issuers and investors; investors’ increasing demand; support received from governmental agencies in the USA and ECB in EU.

To illustrate this phenomenon, we first use the indicator regarding the evolution of the volume of backed securities issues in the 2000-2011 period (Figure 4).



Source: AFME, Finance for Europe, *Securitisation Data Report Q4: 2011*.

Fig. 4: Evolution of value volume of backed securities issues in Europe and the USA, 2001-2011



The evolution of this indicator approximates to the evolution of the financial cycle. Thus, in Europe the value volume of issued securities increased over nine times between 2000 and 2008<sup>7</sup>, and between 2008 and 2011 the value volume of these financial products diminished to almost half. In the USA the value volume of securitized financial products increased 2.4 times between 2000 and 2005, but compared to this last year, the 2011 value volume was only 35%.

Before the crisis, the entire value of securities issued by banks in Europe was placed with investors along with their removal from the balance sheet and the transfer of risk to investors. But after the beginning of the crisis, along with a severe decrease in the total value of backed securities issues, the proportion of the placed value actually collapsed to 50% in 2007, 5% in 2008 and 6% in 2009. Only in the last years we have noticed a slight recovery: 23% in 2010 and 24% in 2011. The rest of 77% and 76%, respectively was retained by the issuing banks.

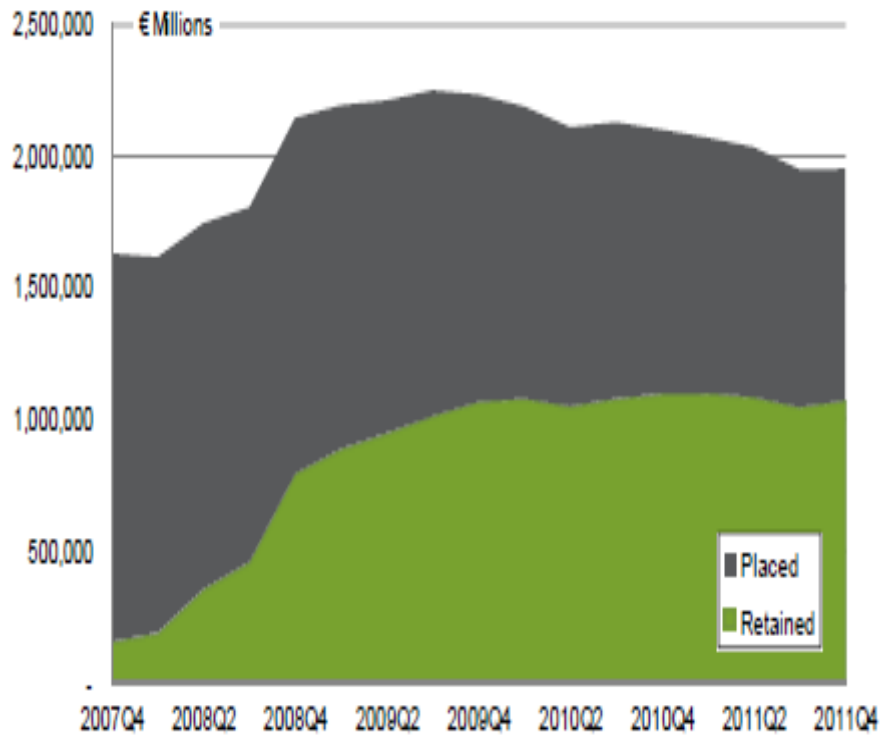
To characterize the place of securitisation in financialisation and the related evolution we use an indicator that is more comprehensive than the previous one: an indicator concerning *the value volume of the securitized debt stock*. The application of this indicator to the case of Europe shows a smaller variation caused by the crisis: while in 2007 (Q4), the value stock of securities related to the securitized debt was about 1.65 trillion euro, in 2011 (Q4) it amounted to 1.95 trillion euro<sup>8</sup>, i.e. a 45% quota was placed with investors and a 55% quota was retained in the banks' balance sheet or repo<sup>9</sup> (Figure 5).

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<sup>7</sup> We should note that the net flow of securities issued in 2006 accounted for about one-fifth of all bank credits granted to non-financial corporations (Altunbas et al. 2007, p. 11).

<sup>8</sup> In the USA, the backed securities market (stock) amounted to 7.86 trillion euro in 2010, Q4, i.e. 85% of the US GDP or 12% of the value of the American corporations' securities market (Altunbas et al., 2007).

<sup>9</sup> Repo = sales of securities, along with an agreement that the seller buys back the securities at a later time and at a higher price than the initial one.



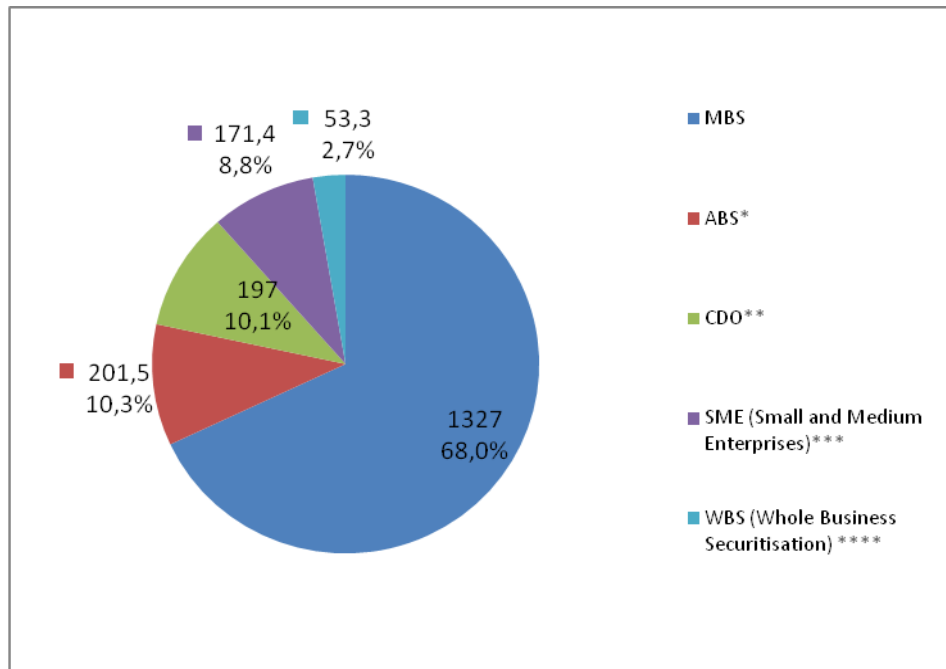
Source: AFME, Finance for Europe, *Securitisation Data Report Q4: 2011*.

Figure 5: The evolution of the value volume of the securitized debt stock of Europe, 2007-2011 (Q 4)

In the USA, the value stock of backed securities amounted to 11 trillion dollars in December 2008, accounting for 84% of the GDP. After the crisis the value stock of backed securities did not decreased significantly in the USA, especially owing to the intervention of governmental agencies that guaranteed the mortgage credits.

### 3.2.5. The structure of securitisation by type of securities

Another aspect to be considered for the securitisation field is the structure by type of securities issued and traded on the capital market. Studying the statistics *AFME/Finance for Europe* (2011), regarding the structure of the value volume of the stock of backed securities (collaterals), we notice significant differences in the proportion of various types of backed securities (collaterals) (Figure 6).



\* It includes: car loans, credit card, loans to consumers and students a.s.o.

\*\* It includes: CDO denominated in an European currency irrespective of the country of the collateral.

\*\*\* This was taken from the CDO category.

\*\*\*\* Certain issues of WBS may be included among ABS or CMBS.

Source: AFME, Finance for Europe, *Securitisation Data Report Q4: 2011*, p. 9.

Figure 6: Structure of the value volume of the stock of European backed securities (collaterals) by type of securities (billion euro, %)

In 2011 (Q4) the highest proportions in Europe can be related to the following types of securities: RMBS (61.6%), ABS (10.3%), CDO (10.1%) and those for SMEs (8.8%)<sup>10</sup>. In the USA the highest share was held by the following types: MBS pertaining to government agencies and non-governmental sector (81.3%) and ABS (18.7%). Therefore, both in Europe and the USA, the highest share is held by backed securities related to mortgage credits (RMBS and CMBS) (*AFME/Finance for Europe*, 2012). The prevalence of these types among all securities is mostly explained by the support provided by the public authorities, taking into account possible social implications of such credits.

<sup>10</sup> The structure in 2011 (Q4) is similar to that in 2010 (Q4).

### 3.2.6. *Ineffective risk management*

The evolution of financialisation by securitisation is closely linked to the risk size as well as to the way risk is managed by rating agencies. As shown above, the medium and long-term transfer of credits, generally characterized by a high risk level, enjoyed a real success owing to an unprecedented growth in issues of backed securities and in the securitized debt stock. Critical analyses made by various institutions and authors (*US Senate*, 2011; *Crotty and Epstein*, 2009; *IMF*, 2009; *Crotty*, 2009) reveal that this success was all the more high as information distortion and the complexity of the new financial instruments were higher, and the quick spreading of securitisation evolved as the role of investment banks and financial institutions grew and commercial banks began to play the role of financial investors.

According to the IMF Report, global financial stability (*IMF*, 2009) and the Report of the Permanent Investigation Subcommittee of the US Senate (*US Senate*, 2011), a major cause of the very quick development of securitisation as well as of the financial crisis was the tendency of the rating agencies to inflate credit ratings, which actually concealed the real risk (*US Senate*, 2011) of medium and long-term securitized credits.

This kind of practice prevailed until 2007, when the vast majority of MBS, ABS and CDO received the maximum rate (AAA), which made this rating class be preponderant among all securitized assets both in the USA and in Europe.

The 2007 and 2008 crisis showed that most of these securities held by investors or traded were substandard when their market value fell. Following this fall, the rating agencies began to revise the ratings of an increasing number of securities to prevent further errors and diminished the AAA class numbers and increased the numbers of lower classes facing severer risk and problems: AA, A, BBB, BB, B, etc. (Table 3).

Table 3

Share of rating classes set by Moody's for securitized assets in all securitized assets in Europe and USA (%)

Class of rating	Europe					USA				
	2008 Q1	2008 Q4	2009 Q4	2010 Q4	2011 Q4	2008 Q1	2008 Q4	2009 Q4	2010 Q4	2011 Q4
AAA/Aaa	85.45	81.09	75.64	73.42	65.74	81.76	62.98	37.78	33.71	28.63
AA/Aa	5.22	6.54	9.81	10.63	12.27	5.37	8.67	10.41	9.76	8.08
A/A	4.37	5.58	5.87	5.79	8.95	3.95	6.75	7.62	6.12	6.01
BBB/Baa	3.85	4.18	3.81	5.45	6.91	4.82	7.57	7.32	5.43	6.13
BB/Ba	0.84	1.21	1.46	1.50	2.20	1.41	3.06	6.04	3.95	4.78
B/B	0.10	0.44	0.87	0.77	1.12	1.09	2.71	8.49	6.14	7.77
CCC/Caa	0.05	0.57	1.15	1.14	1.28	0.66	3.00	11.18	15.38	17.83
CC/Ca	0.03	0.17	0.89	0.86	1.14	0.47	2.60	5.61	9.38	10.12
C/C	0.07	0.21	0.50	0.44	0.38	0.45	2.66	5.55	10.13	10.64
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: AFME, Finance for Europe, *Securitisation Data Report Q4: 2008-Q4: 2011*.

This revision was very extensive in the USA, but moderate and lagging behind in Europe. For example, while in 2008 Q1 the AAA class accounted for 85.45% in Europe and 81.76% in the USA of the total value of securitized assets, in 2011 Q4 the AAA class included 65.74% in Europe and only 28.63% in the USA<sup>11</sup>. The superior class AAA was replaced in Europe especially with classes AA, A and BBB, and in the USA especially with classes CCC, CC, AA and B.

Dividing ratings into the so-called tranches (A, B, C, D), the first ones to absorb losses are more risky lower tranches, while the higher tranches are to absorb losses as long as the lower ones are unable to do so since they have no financial reserves available.

Under these conditions, the banks diminished drastically the issue of securitized financial products, and investors were very reluctant to make a demand for such financial products, which caused a limitation of the financialisation process and an extension of the financial crisis.

Restarting securitisation on a sound basis (not retaining but placing the issued securities to investors) can be done by restoring investors' confidence in the market of securitized products, first by ensuring an information symmetry and an equitable distribution of the credit risk among the parties involved in financial transactions. This is very necessary and urgent since the risk transfer from commercial banks to investment banks and other financial institutions

<sup>11</sup> In the USA, between 2000 and 2007, the share of AAA-rated CDO securities in all CDO securities varied between 67.8% and 75.3% (*Benmelech și Dlugosz, 2009, p. 9*).

proved to only delay the outburst and increase the dimension of the financial crisis and its negative effects (*Crotty and Epstein, 2009; World Economic Forum, 2012; BIS, 2008; US Senate, 2011; Duffie, 2007; Crotty, 2009*).

### 3.3. Financialisation through financial derivatives<sup>12</sup>

In the previous section we discussed the development of financialisation by securitizing the credit instruments to satisfy the need of liquidities and risk transfer. Thus, the new backed securities have become credit derivatives traded on the secondary capital markets. Securitisation by means of such derivatives does not use all ways of extension of securitisation. Indeed, in less than two decades, derivatives – as financial instruments – have strongly asserted themselves, being created and applied to diminish or to eliminate risks that could be caused by events related to credits – insolvency, bankruptcy, restructuring – or by fluctuation of interest, of exchange rate, variation in market prices of securities, in stock exchange indices, in prices of energy, gold, metals, agricultural products, etc.

Owing to the huge amount of transactions of such instruments on the respective markets and their impact on economic and financial stability, they become very important for the regulation activity, for scientific debates and for the country or world financial policies.

#### 3.3.1. Objectives

In modern finance, derivatives represent a new institutional and instrumental construction for expanding financialisation. They are related to underlying assets and their value results from such assets through contracts concluded between parties in order to obtain a higher profit with less capital by using a mechanism for guaranteeing transactions through collaterals or centralized compensation institutions. The transactions on derivatives markets have specific purposes such as: 1) ensuring against any risk regarding interest fluctuations, exchange rates, prices of goods and securities, so that the risk is

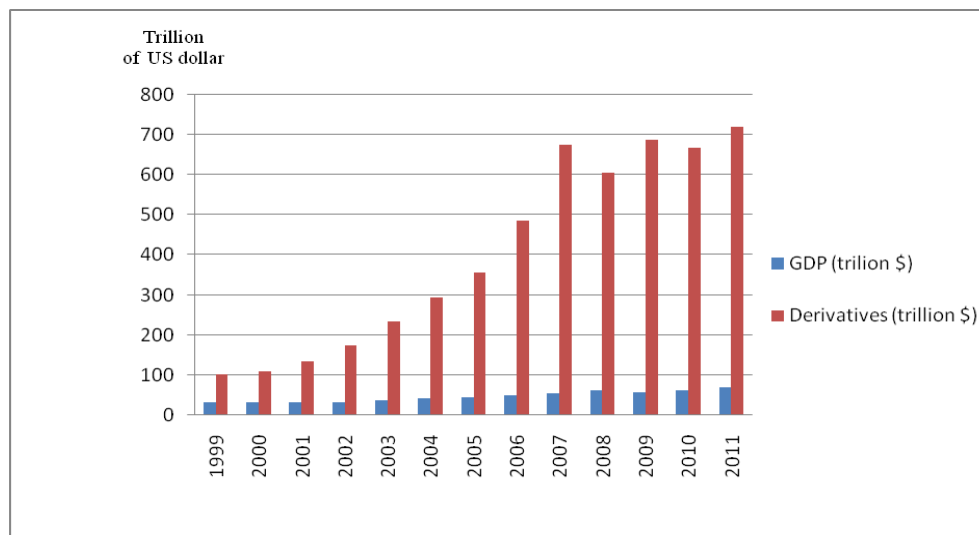
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<sup>12</sup> *Blundell-Wignall and Atkinson (2011, p. 3)* distinguish between two types of financial products: 1) primary financial instruments related to consumption, saving and fixed capital formation which create wealth and takes the form of loans, securities for investment funding, innovation and productivity rise. These are underlying assets or market variables; 2) derivated financial instruments, associated to the primary ones, are mainly destined to transfer and/or cover risk, to arbitrate prices for speculative reasons, to diminish payment obligations, to circumvent regulations and to reduce the cost of activities (management fees, custody, brokerage, etc.). The derivatives traded on the OTC market (as we shall see below) form a category related to the special way the transfer of derivatives between agents takes place, i.e. directly and by bilateral contracts.

taken on by investors for premiums stipulated in the contract; 2) speculating in the fluctuation or movement of market variables or the evolution of credit quality during the stages of economic cycles; 3) arbitration by taking advantage of the differences between markets as regards prices. These specific objectives can be attained in accordance with the expected potential depending on the development of derivative markets, the infrastructure of these markets, the stages of the economic and financial cycle and the management performance.

### 3.3.2. An explosive growth of derivatives

Owing to these objectives and quick expansion of financial markets (in volume and geographical area) and dissemination of financial innovations, the world derivatives markets have been booming in relation to the world GDP: derivatives increased 7.08 times as against 2.23 (for the GDP), in nominal terms in the 1999-2011 period (Figure 7).



Source: Based on BIS and World Bank data.

Figure 7. Evolution of the value volume of derivatives and GDP, in nominal terms, in the world (1999-2011)

The main reason of this significant growth is that derivatives provide mechanisms for both the protection against risk (their main function) and speculation. Therefore, using less capital, investors have succeeded in winning major market shares and obtaining high income rates since, in

general, during a boom stage of the economic cycle the underlying assets indicators evolved until 2008 just as the derivative buyers had anticipated.

Besides the advantages offered to investors, another reason of the boom is the diversification of the derivative instruments and related markets as well as their orientation towards more flexible structures based on bilateral transactions not hindered by regulations favouring the great players on the markets.

### 3.3.3. Classifications of derivatives and dynamics of OTC markets

To get a better image of the diversification and the combination of derivatives for an institutional construction, we first classify derivatives by several criteria, such as: underlying assets, contract conditions, trading mode.

a) By *the underlying assets* or the variables from which the value of these financial instruments is derived, we distinguish among the following types of derivatives: derivatives of the credit titles, derivatives dependent on possible crediting events (insolvency, bankruptcy, restructuring), derivatives of interest rate, derivatives of exchange rate, derivatives of securities price, derivatives of merchandise price, derivatives of stock exchange indices, derivatives of climate evolution, derivatives of noxious emissions, etc.

b) By *the stipulations in the contracts concluded by parties*, derivatives can be classified as follows:

- Forward, when the two parties to a contract agree to exchange the financial product at a pre-established future time and a fixed price.
- Futures are standardized variant of forward traded on financial markets.
- Options, which entitle the buyer to buy and the seller to sell the financial product at a certain future time and a pre-set price, and to pay for it in the form of a premium. This premium means a maximum loss to an opting buyer.
- Swap, an agreement between the two parties to exchange a flow of liquidities for another one for a significant amount.

c) By *the mode of trading on markets*, financial derivatives may be classified into two categories:

- Derivatives traded on a contract basis under public market jurisdiction, by regulated exchanges based on public information and competition, through contract-based instruments and exchanges.
- Derivatives traded on a contract basis and privately (directly between two parties), outside the OTC market or off exchange. The type of OTC markets considers a participation in transaction of professionals with significant amounts and financial products with non-standard characteristics able to satisfy the demand for retained or bespoke contracts so that users can cover the specific risk (*Commission Staff, 2009, p. 8*).



The types of traded derivatives show a wide range of variants: from derivatives with fully standardized parameters, pertaining to the futures class, to those conceived to satisfy specific needs and requirements, pertaining to the swap class. Obviously, the standard derivatives or the highly standardized ones, such as futures, are traded on markets under public jurisdiction (stock exchange), and the financial products having specific (non-standard) parameters, swap type, are traded by bilateral contracts on the OTC market. Table 4 shows the structure of the derivatives market resulted from combinations of classes of derivatives and types of markets.

Table 4

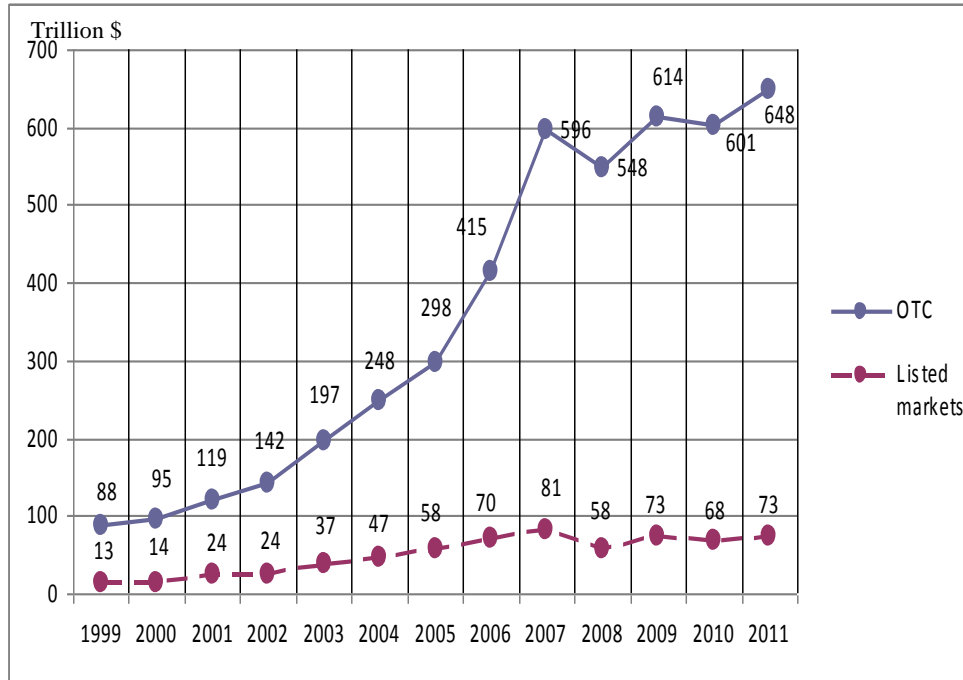
The structure of derivatives markets

<b>Types of market</b>	<b>Types of trading</b>	<b>Types of derivatives</b>
Credit	OTC	CDS (Credit Default Swaps)
Interest rates	Public exchange	Futures on short-term interest rates and government bonds
	OTC	IRS (Internal Review Service)
Exchange rates	Public exchange	Futures and options
	OTC	Spot and options
Equities	Public exchange	Futures
	OTC	Physical trading, structured trading and swaps

Source: Commission of the European Communities, Commission Staff Working Paper "Ensuring Efficient, Safe and Sound Derivatives Markets", Brussels, 3.7.2009 SEC (2009) 905 final.

Excepting the credit default swaps (CDS)<sup>13</sup>, which are traded only in a OTC system, all the others are traded in a mixed (public and OTC) system in different proportions. As a whole, the differences in volume traded on the two categories of markets increased at a higher rate between 1999 and 2007 (an economic cycle boom) (Figure 8).

<sup>13</sup> Credit default swap means insuring against credit payment cessation, used as a derivative instrument for transferring the credit risk.

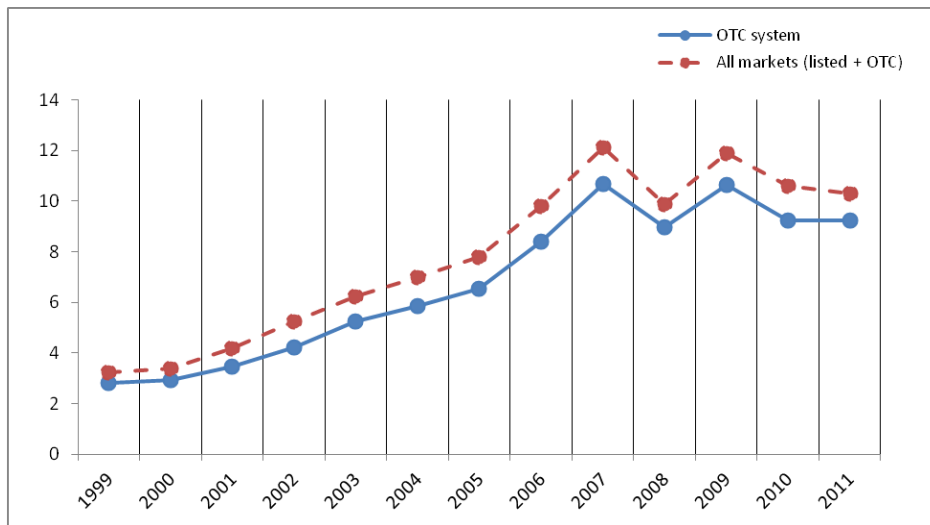


Source: Based on BIS and World Bank.

Figure 8. Size of OTC markets and listed derivatives markets

According to the graph in Figure 8, the nominal value of derivatives traded on the OTC market in the world increased 7.34 times between 1999 and 2011, from USD 88 trillion in 1999 to USD 648 trillion in 2011, while the nominal value of derivatives traded on a contract basis on public (listed) markets increased 5.41 times, from USD 13.5 trillion in 1999 to USD 78 trillion in 2011. Therefore, the proportion of OTC markets in all traded derivatives varied from 80.9% to 90.5% between 1999 and 2011, showing a slightly rising trend.

Determining the ratio of the value of transactions of derivated financial products on the OTC market and all markets (listed and OTC) to the world GDP in nominal terms results in the value of traded derivatives per each GDP dollar (Figure 9).



Source: based on BIS and World Bank data.

Fig. 9: Evolution of the USD value of derivated financial products traded on the basis of contracts on all markets (listed + OTC) per one GDP world dollar

On the OTC market, in 1999, one GDP dollar was equal to derivatives transactions of USD 2.82 and, in 2011, to transactions of USD 9.25, while on all markets of derivatives (listed and OTC), one GDP dollar was equal, in 1999, to transactions amounting to USD 3.25 and, in 2011, to USD 10.3.

But there are more differences between the two types of market:

- a) On the public exchange markets, accounting for less than 20% of the total value of derivatives, futures and options (with a high standardisation level) are traded and they are available by retail not only to big investors but also to small ones (including natural persons);
- b) On the OTC markets, accounting for 80-90% of the total value of derivatives, non-standard financial products such as CDS, forwards and exotic options are traded by big investors by means of bilateral contracts and directly (no intermediaries).

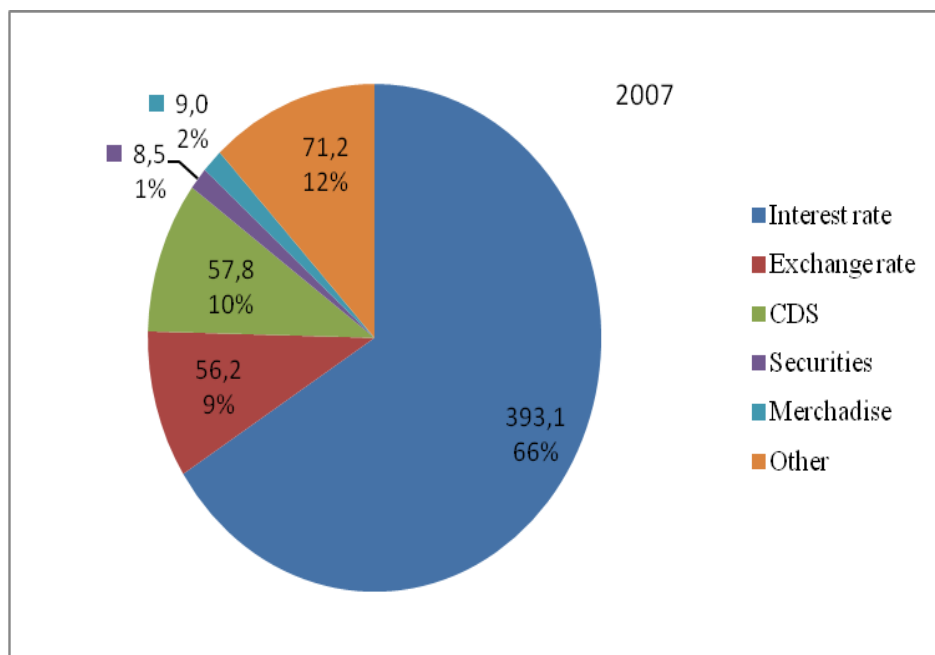
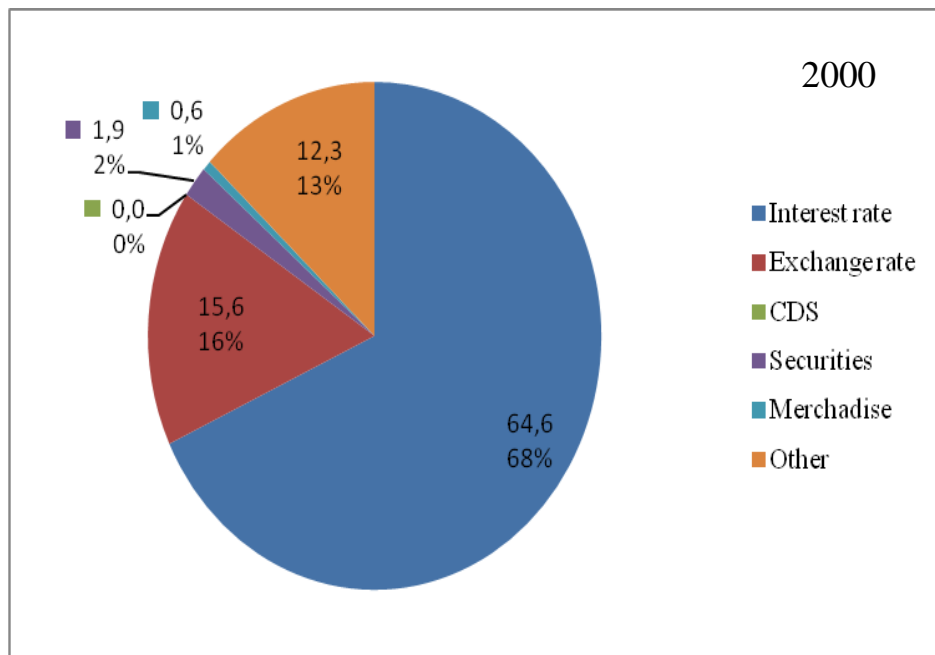
Unlike public exchange markets, the OTC markets are highly concentrated. For example, only a small number of big professional investors trade on these markets. According to data published by International Swaps and Derivatives Association (ISDA) (2009) and processed by the Commission of the European Communities (2010), out of 500 big international corporations (classified by incomes), 470 traded 88%

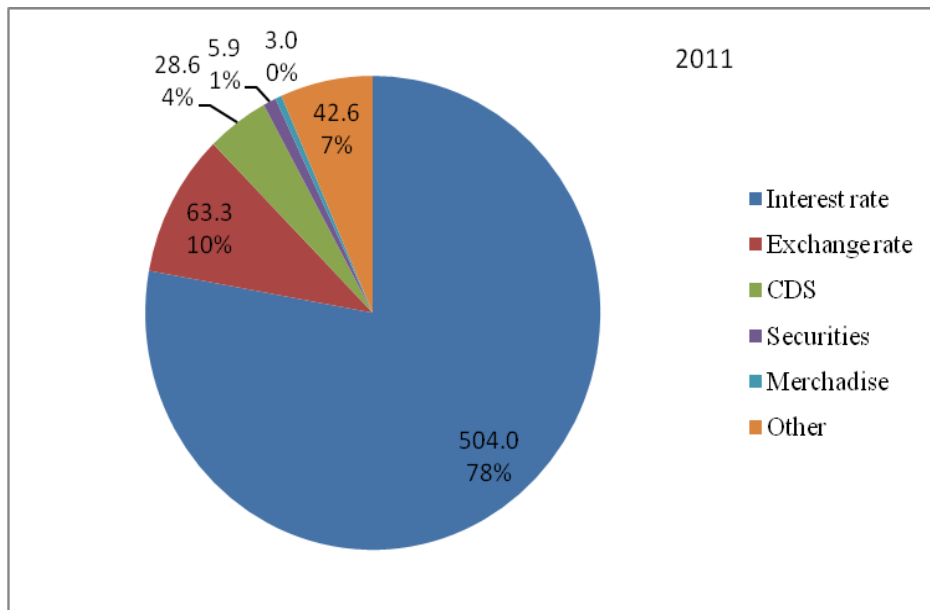
of the total value of the exchange rate derivatives and 83% of the total value of the interest rate derivatives. The same high concentration is characteristic of CDS derivatives.

Since transactions are direct and bilateral and the concentration level of OTC markets still keep a high non-transparency level in relation to entities outside the system and a low regulation level, and the system of protection of credits against risk still is, in many countries (for OTC markets), that one based on bilateral collateral arrangements, although this system is more costly and ineffective if compared to the Central Counterparty Clearing House – CCP. The Commission of the European Communities coordinates, together with the ISDA, an extensive plan for the enforcement of regulations in the OTC markets in all EU countries in which a centralized compensation mechanism plays a leading role.

#### *3.3.4. Changes in the structure of the OTC markets*

As mentioned above, the OTC system uses as financialisation instruments the following: interest rate, exchange rate, movement of securities prices (shares, bonds), CDS, private equity, merchandise, etc. These market segments have witnessed very different growth rates in the last decade as well as major changes in the proportion of some derivatives in all OTC markets. Figure 10 shows the structure of OTC markets for derivatives in the world, in absolute values (USD trillion) and percent, in 2000, 2007 and 2011.





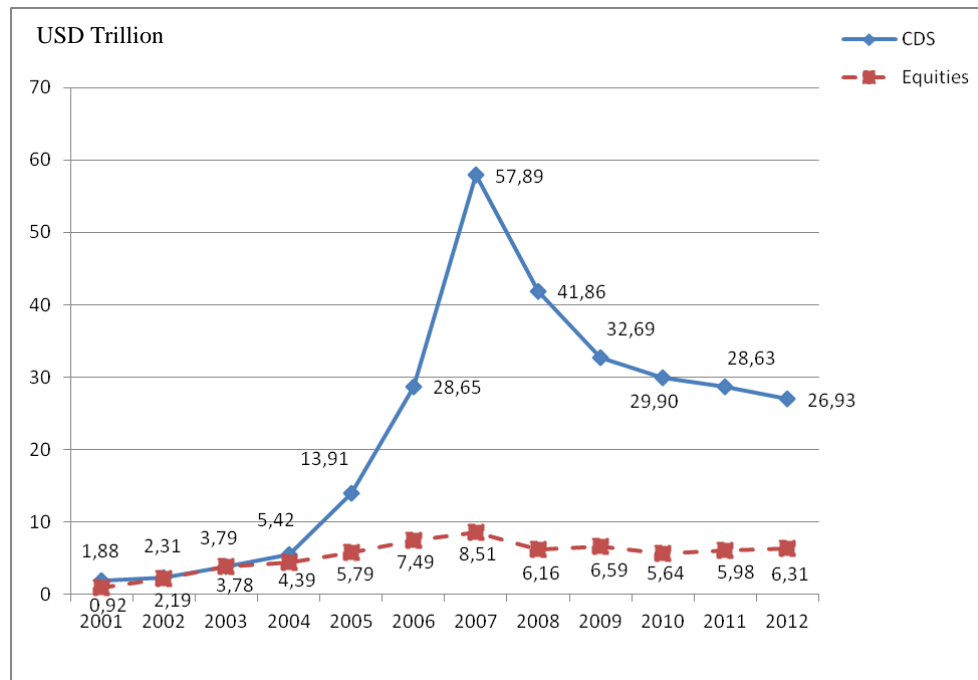
Source: Based on BIS data.

Fig. 10: Changes in the structure of OTC derivatives markets (trillion USD, %)

As a whole, the OTC market grew 6.8 times between 2000 and 2011, from USD 95 trillion in January 2000 to USD 596 trillion in 2007 and to USD 648 trillion in January 2011.

Among all derivatives, the most discussed one in economic literature (either approved or criticized or rejected) is CDS. First, because in a very short time it saw a record growth of 63 times in 2007 as compared to 2001, followed by a fall to less than half (46%) in 2012 as compared to 2007 (Figure 11). Second, this derivative operates in a field of high interest in ensuring credits by taking into account possible future events (insolvency, bankruptcy, restructuring) and providing mechanisms and attractive conditions for players showing a high propensity for risk on financial markets. Third, the transaction mechanism of the OTC system is relatively elastic and provided with a system of personalized contracts specific to the so-called case derivatives.

The investors' interest, generated by advantages offered by this category of derivatives, by OTC mechanisms and by lax regulations, has diminished since the crisis began in 2007, when also this CDS market was seriously affected.



Source: CDS derivatives for the years 2001-2009, in Robert A. Jarrow (2010), *The Economics of Credit Default Swap*; for the years 2010-2012, BIS statistics.

Figure 11. Evolution of CDS and equities in the world, USD trillion (nominal value), 2001-2012

The comparative analyses by types of derivatives made by several authors and international institutions and organisations (public or private) show the utility and the positive role of derivatives through the services they provide, but also the limits, shortcomings and disappointment when their use is incorrect and inappropriate. For example, Stulz (2010) recalls that economists, in general, believed that financial derivatives, especially CDS, contributed to the growth of economic welfare by stimulating and facilitating the risk sharing by investors and the efficient allocation of capital. Indeed, financial derivatives are used to cope with shortcomings of the financial markets, such as shortage of liquidities, risks related to credits, to the interest, to the exchange rate and to the movement of the prices of securities and merchandise. The best example is the very quick expansion of these instruments in the world.

The question is whether derivatives, in general, and CDS, in special, can resolve the shortcomings and basic problems of the risk and other expectations. Besides the fact that derivatives show serious limits, results

depend on the way they are used. Thus, the use of CDS derivatives, which means concluding and fulfilling insuring contracts for protecting the buyer from negative effects that might occur in the future because of some probable events (insolvency, bankruptcy, restructuring), cannot prevent such situations. The mechanisms of these derivatives only facilitate the transfer of risk from one category of small financial agents to another category of bigger financial agents, more ready to diminish or cover the risk. On a macroeconomic plane, they cannot eliminate the risk. Also, CDS derivatives rather stimulate the moral hazard since the insurance contract guarantees only the payment of premiums and the compensation rate. Moreover, instead of acting against the causes of the financial crisis, the CDS derivatives cause rather dissipation and accumulation of negative effects, which finally cause a crisis delay and amplification.

In spite of the negative aspects mentioned above, in my opinion, Stulz (2010) seemed quite reasonable to believe that neither the CDS nor other financial derivatives could cause, in all cases, the severest problems resulting in crises. At the same time, one can hardly support those exclusive opinions exonerating the derivatives from their responsibility of generating the latest financial crisis, simply because the crises had only two causes: 1) a dramatic price fall, which surprised investors and financial institutions; 2) many financial institutions used an extremely high financial leverage and held high amounts for investments in sub-standard securities, which caused unexpected losses and, further, solvency problems and the contraction of the real economy (*Stulz, 2010, p. 90*).

Actually, even the CDS derivatives, besides other factors, joined the two causes of the crisis, so that the derivatives cannot be exonerated from responsibility. Moreover, EC specialists found out that in the total losses caused by the financial crisis to the EU until December 2009<sup>14</sup>, the share of the OTC derivatives was over euro 10 billion (*European Commission, 2010, p. 110*).

Considering the unsatisfactory functioning of the financial markets exposed to disequilibria and disturbances, international and national organisations as well as governments discuss, propose and apply solutions to diminish the impact of various factors on financial crisis and to reduce and counteract the effects on the real economy. Besides granting huge

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<sup>14</sup> For assessing the losses caused by the financial crises, they took into account the fiscal costs, resulted from public interventions in the banking sector – capital injection, guarantees, interventions for liquidities, aid for assessing the assets, as well as the cost of production of lost products and services, to which one has to add increasing government debts, the trade balance deficit and unemployment (*European Commission, 2010, p. 119*).



amounts to save the banks, the variety of other prudential measures/solutions is quite wide. In the case of OTC markets, the solutions aim mainly to strengthen the regulations, to extend the standardisation of contracts and the parameters of the financial products, to ensure the transparency of OTC markets and to make changes in the compensation system for a transition from the bilateral ones to the centralized ones.

#### **4. Conclusions**

In a broad sense, financialisation is defined as a process of extension of money relations, of new financial instruments and mechanisms and of financial institutions in the economy and the society. In our approach, financialisation is considered a dynamic and complex process that develops and extends quickly, but, for internal reasons, the system becomes more fragile to changes and various disequilibria, risking to collapse under its own weight and affect severely the real economy, unless the system is regulated and supervised.

According to Minsky's theory, financialisation – by its nature – bears and develops germs of instability, which means that the crisis factors should not be looked for outside the financialisation process but inside the very process. Instability accompanies financialisation as a shadow and is caused by an uneven accumulation and development of some elements or stages of the financialisation process, causing severer disequilibria, which become unsustainable over time unless they are prevented to develop anarchically. In this paper, I have tried to explain the reasons and the ways to extend financialisation and to reveal the increasing fragility of the financial system because of this process.

The measurement of the development level of financialisation means more than what statistics show through indicators revealing the share of the financial sectors in the GVA or the share of these sectors regarding the number of employees in the economy. To assess the development level of financialisation and to describe this process, we have to go beyond this indicators and consider the financial relations inside all sectors of economic and social life both as users of financial services and as generators of the demand for financial services (the banking system, the insurance system, the financial institutions, the capital market, etc.).

When referring to the architecture (structure) of the financial system, we have to consider not only the banking system, but also the capital market, as concurrent fields. Often, economists – when refer to the

development of the two concurrent fields and see notable differences in development among countries – conclude that it is a sign showing two ways to develop capitalism: the German one and the Anglo-American one. This seems to be a forced conclusion. The two systems are on continuous move and change in all countries having a chance that the capital market prevail in the process of funding the economies, including the German one, taking into account both the advantages – elasticity, low transaction costs, increasing openness to innovations – and the number and size of market players – investment banks, international financial conglomerates, etc.

The architecture of the financial system is incomplete when fiscal-budgetary relations are excluded from or neglected by financial analysis and policies. This is the lesson of the crisis in the Eurozone, caused by the separation of the monetary-financial policies from the fiscal-budgetary ones: the former are under the EU jurisdiction while the latter remain totally under the jurisdiction of the national governments. The measures in progress aim at eliminating this contradiction by gradual integration of the national fiscal-budgetary system into the EU financial system. But these measures are too low if compared to the velocity of extension of financialisation exposed to more disequilibria.

While traditionally the financialisation of the economies was mainly achieved by bank intermediation and by issuing and trading securities like shares and bonds on the capital market, in the last decades the focus has shifted to investment banks, financial funds as well as big international financial conglomerates. They have changed the structure and the functioning mechanisms of the financial system and, naturally, the scientific issues to be discussed. In the new context, discussions concern many problems regarding the role of the banking system and the shadow banking system as well as the role of financial innovations, their impact on the functioning of financial markets. Among the multitude of such problems, we focus on smaller but very urgent problems concerning the ways to develop the financialisation through indebtedness, credit securitisation and extension of OTC market for financial derivatives.

Funding through crediting is a positive factor of economic and social development as long as crediting is on a prudential basis and within limits of tolerance to debt specific to a country. The data of our study show an exaggerated increase in the indebtedness of many countries both in the government sector and in the private one (companies and population). There are countries with a total debt exceeding 3-6 times the GDP, and the public (internal and external) debt and the population's debt go beyond the

sustainability limit. There are countries in which only the annual interest amount reaches 10-15% of the GDP. Obviously, in such cases, an increasing risk of financial instability is unavoidable especially in countries that stimulate economic growth by consumption and not by investment or exportation. Therefore, the public debt can hardly be supported only on a budgetary basis.

A relatively new way of extension of financialisation is securitisation. It emerged when countries with a developed financial system used on a larger scale innovations such as the transformation of non-tradable (medium and long-term) credits into tradable guaranteed securities destined to powerful investors.

The need to obtain liquidities and the opportunity to transfer the credit risk from the issuer to a well paid big investor stimulated a large-scale securitisation especially in the developed countries. The maximum value volume of the issues of backed securities amounted in the EU to USD 711 billion in 2008, and, in the USA, to USD 2914 billion in 2003. The credit crisis, especially the mortgage credit crisis as well as loss of trust in such securities caused their collapse: to almost half in the EU and to 35% in the USA in 2011, which triggered the financial crisis.

An important way to develop financialisation – largely analysed in this paper – is the large scale use and expansion of financial derivatives as an advanced form adapted to specific cases of contract-based insurance against risk. The list of the most important classes of derivatives that form the object of the contracts includes derivatives related to the interest rate, the exchange rate, stock exchange indices (of shares and bonds), the insurance on credit default swaps, the price of merchandise.

What makes us focus on all new financial instruments, especially on those used on the OTC market, is a high non-transparency level, to which we should add lax regulations or even the absence of regulations for some markets, the concentration of transactions in a relatively small number of big international corporations as well as unreasonably high ratings granted by the rating agencies before the crisis. All of them caused a loss of confidence especially in the markets of derivatives related to credits and securities, followed by a fall in assets prices and a slow-down of transactions almost to freezing in most market segments.

It is worth mentioning that the use and spreading of financial innovations like securitisation and derivatives are positive factors of progress for supporting effective financialisation of the economies, since they help to acquire liquidities, to save capital and to increase financial and economic

returns. It is true that the two types of innovation – as important factors of financialisation extension – cause increasing fragility of the financial system. But the allegations that innovation is responsible for the financial system instability and that it triggers crises and is a “mass destruction weapon” are misleading. Just as a weapon cannot be accused of murder, so financial innovations are not responsible for triggering financial crises. Securitisation and financial derivatives are only mere instruments used by the people and, therefore, the people and the institutions they represent use innovation either correctly and beneficially or incorrectly and improperly (for speculative purposes). Therefore, the people and the institutions they represent are guilty and have to pay for it.

The financial crisis revealed several anomalies of all financial markets – for loans, backed securities, derivatives and OTC ones. At the same time, the financial crisis revealed that many of their characteristics and destructive effects are a result of the application of financial policies inconsistent with real circumstances and tendencies – some of them laying strong stress on neoliberal deregulation policies, and others, more recently (under the pressure put by the crises), focused on pro-cyclical interventionist policies of a classic Keynesian type. Free of ideological constraints, the new policies, based on a heterodox thinking, seem to have the most supporters for finding, formulating and adopting economic and financial policies in accordance with the trends supported by the new financial, economic and social realities including the integration and globalisation realities. The recent crisis taught us lessons for preparing, working out and applying new regulations. Within these regulations, the most important points should be a better risk management, an efficient prudential mechanism in the crediting field and the extension of this mechanism also to securitisation, a more effective mechanism for signalling and preventing financial disturbances, increasing the speed of integration of the national fiscal-budgetary policies (including those of non-euro member countries) into the EU’s financial policy, and, finally, a wide and effective institutional basis for equally ensuring the transparency of the derivatives transactions on the OTC markets and of the centralized compensation mechanisms.

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